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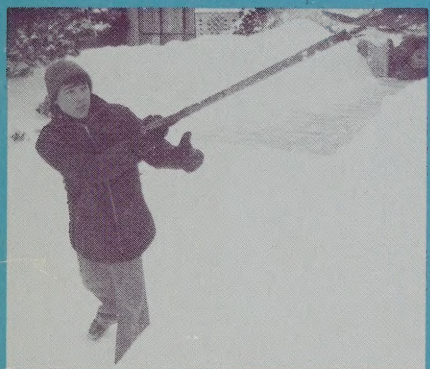
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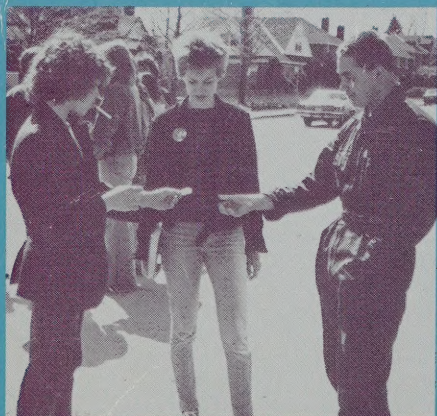
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# CANADIAN YOUTH



by Louise Lapierre  
and Hélène Aylwin



*Perspectives  
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# CANADIAN YOUTH

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## *Perspectives on Their Health*

*by Louise Lapierre and Hélène Aylwin*

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## FOREWORD

To mark the International Year of Youth, researchers throughout the world have been focussing on what the future holds for the young people of their countries. This surge of activity provided the impetus for this study. Its chief objective is to take a broad look at the health status of present-day Canadian youth, on the assumption that it will largely determine their future quality of life.

Is the current health status of young people cause for optimism? Will tomorrow's society be healthier than today's? What preventive programs should be given priority? What are the health care needs of young Canadians? These are some of the questions that are addressed in this study.

The authors wish to express their appreciation to; Dr Robin Walker, member of the board of directors of the Canadian Council on Children and Youth, Mr Wayne Millar, Health Services and Promotion Branch, Health and Welfare Canada, and Mr Douglas E. Angus, Chief, Research and Analysis Section, Health Division, Statistics Canada, for their comments and suggestions on an earlier version of the study. The authors assume entire responsibility for any errors or omissions in the report.



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## SUMMARY OF MAJOR FINDINGS AND CONCLUSIONS

This study reveals that the dissimilarity between young males and young females in the area of alcohol and tobacco use is gradually disappearing today.

The drinking behaviour of teen-age girls is quite similar to that of boys of the same age, whereas there are substantial differences between older men and women. Young women are now more likely to start drinking at the age of 14 or 15; women now in the 25-44 age group were most likely to take their first drink when they were between 18 and 21.

While smoking appears to be on the decline among young males, the percentage of smokers in the young female population remains fairly steady.

Physical activity statistics indicate that young people are the most active members of the population, and that the level of physical activity decreases with age. Men are more active than women in the 15 to 24 age range, but their activity level is very similar to that of women in the 25-44 age group.

While a majority of women between 20 and 44 have a Pap test at least once a year, 67% of women in the 15-19 group have never had a Pap test.

Between 1966 and 1981, the fertility rate dropped 45% in the 15-19 age group and 43% in the 20-24 group. Between 1974 and 1981, however, the therapeutic abortion rate for the two groups rose by 45% and 50% respectively. Birth weight statistics show that mothers between 15 and 19 have the highest proportion of underweight babies.

The study also reveals that the number of new cases of syphilis dropped sharply between 1978 and 1982. The opposite was true of new cases of gonorrhea, which increased among young people.

The percentage of the population that consults a physician and the frequency of visits increase with age. From the age of 20 onward, women make more visits than men. For males, the leading cause of hospitalization is accidents, and for females, childbirth.

Motor vehicle traffic accidents are the leading cause of death of young Canadians. The 15-19 group registered the largest increase in the rate of deaths from this cause between 1961 and 1981 (62%), while traffic deaths in the 20-24 group occur at about the same rate observed in 1961. During this same time period, suicide has become the second ranking cause of death for men in both 15-19 and 20-24 age groups. Suicide is also the second ranking cause of death for women in the 20-24 group, and third ranking for those in the 15-19 group.

An analysis of the statistics by age group and sex yields interesting comparisons. Males and females in the 15-19 group seem to have similar lifestyles with regard to drinking, smoking, drug use, medical consultations, disability days, bed-days and the use of violent methods of suicide, whereas there are sharp contrasts between the behaviour patterns of older men and women. Whether this similarity in the behaviour of those of both sexes who are 15 to 19 will persist, as they age, will have to be the subject of future study.





# INTRODUCTION

To mark the International Year of Youth, Statistics Canada prepared this study of the lifestyle and health status of young Canadians.

There is clearly no universal age range that comprises "youth". In western society, it is customary to, "equate the ages of formal secondary and higher education with a transition from childhood to adulthood".<sup>1</sup> In some other societies, however, it is traditional that "rural youth (...) move from childhood to adulthood (...) before the age of 15".<sup>2</sup> Thus, the definition of "young people" depends on the socio-economic context in which people live.

The first chapter attempts to draw a profile of Canadian young people. It touches briefly on questions such as; how many of them are there, where do they live and what is their life expectancy.

Chapters II and III discuss the lifestyle habits of young Canadians. They deal with such subjects as alcohol consumption, physical activity, contraception and sexually transmitted diseases. Lastly, Chapter IV will explore the health status of young people, including illness and its effects on them, their physical fitness and their mental health.

## Data Sources and Limitations

For the purposes of this study, young people are defined as the population between 15 and 24 years of age. In most tables, the data are broken down by age group (15-19 and 20-24) and sex. For some variables, it was possible to present information about the health of the population 25 and over as a basis for comparison.

The factors used to measure the health status of young Canadians are lifestyle, physical health, mental health and mortality.<sup>3</sup>

Most of the data presented in this study were supplied by Statistics Canada's Health Division and the 1978-1979 Canada Health Survey. The data collected in this survey provided information about the lifestyles of the population, individuals' perceptions of their health status and response to illness. These data apply only to 1978-1979, as the survey was subsequently discontinued. Because of the large number of cross-classifications of variables in the tables derived from the survey, detailed information at the provincial level could not be released.

With regard to the data presented on the new cases of syphilis and gonorrhea it is likely that the actual incidence is somewhat understated, since "it would be unreasonable to expect that every new case of a notifiable disease will actually be recorded".<sup>4</sup>

Published statistics on institutional morbidity are instrumental in determining the leading causes of hospitalization among young people. However, these data represent the number of cases and not the number of persons, since one individual may be admitted to hospital more than once during a year for treatment of the same disease. Hence the number of persons hospitalized is somewhat lower than the figures would suggest. For morbidity and mortality, the various categories (chapters) were taken from the International Classification of Diseases (ICD).

---

<sup>1</sup> UNESCO, *Youth in the 1980s*, UNESCO, Paris, 1981, p. 26.

<sup>2</sup> Ibid.

<sup>3</sup> For an examination of the underlying psycho-social aspects of health status and behaviour, see Michel Tousignant *The Health of Young Canadians: Trends, Assessment and Psycho-social Aspects*, Social Trends Analysis Directorate, Secretary of State, Ottawa, 1985.

<sup>4</sup> Statistics Canada, *Annual Report of Notifiable Diseases 1978*, Catalogue 82-201, Ottawa, 1979, p. 8.

With regard to mental health, hospitalization statistics for mental institutions indicate first admissions only. Here again, the diagnoses are based on the ICD.

Statistics on suicide attempts are given for only five provinces because only these five report the external cause of injury. Moreover these statistics only relate to suicide attempts that result in inpatient hospitalization.



# CHAPTER I

## A PROFILE OF CANADIAN YOUTH

The population of Canada was 24.3 million in 1981. Of this number, 4.6 million were between the ages of 15 and 24.<sup>1</sup> The reason for this population "bulge" is, of course, the high birth rate between 1951 and 1966, the baby-boom years. Since then, the large numbers of young people have caused many changes in the population structure, so that today, almost one Canadian in five is a young person. Chart I shows the age distribution of young people in 1981 compared with the rest of the population. Between 1981 and 1986, the number of Canadians in the 15-19 age group is expected to decline by 16%.

### 1.1 Where do Young People Live?

More than half of Canadian youth live in urban areas with over 100,000 population, and about one million of them reside in rural districts.<sup>2</sup>

Roughly two of every three young people live with their parents. Most of those in the 15-19 group fall into this category. In the 20-24 group, half of the males and a third of the females live in their family home.<sup>3</sup>

### 1.2 Education and Work

In 1981, approximately two thirds of people between 15 and 19 were full-time students, compared with only 20% of those in the 20-24 group. Most of the former were in elementary or secondary school, while the latter were attending post-secondary institutions.<sup>4</sup>

In 1982, over half of the population aged 15 to 19 were working, either full time or part time, and 22% were unemployed. In the 20-24 group, the participation rate was 79% and the unemployment rate 17%.<sup>5</sup>

### 1.3 Marriage and Divorce

According to the 1981 Census 1.5% of males aged 15 to 19 were married compared to 6.5% of females in this age group.

In the 20-24 group, 28% of males and 48% of females were married. In this same group fewer than 1% of the males and females were in the widowed and divorced category.<sup>6</sup>

---

<sup>1</sup> 1981 Census.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Statistics Canada, **The Labour Force**, Catalogue 71-001, Monthly, Ottawa, December 1982.

<sup>6</sup> Statistics Canada, **1981 Census**, Catalogue 92-901, Ottawa, September 1982.

#### 1.4 Life Expectancy

Using disability data collected in the Canada Health Survey and information supplied by extended care institutions, Wilkins and Adams conducted a study<sup>7</sup> of the disability-free life expectancy of Canadians. They found that in 1978, the life expectancy at birth of males and females was 71 and 78 years respectively. Disability-free life expectancy, however, was 59 years for males and 63 years for females (Table 1). At age 15, males can expect to live about another 46.2 years in good health, while females of the same age have 49.4 disability-free years ahead of them. This means that although women live an average of seven years longer than men, the difference between the sexes in disability-free life expectancy is substantially smaller.

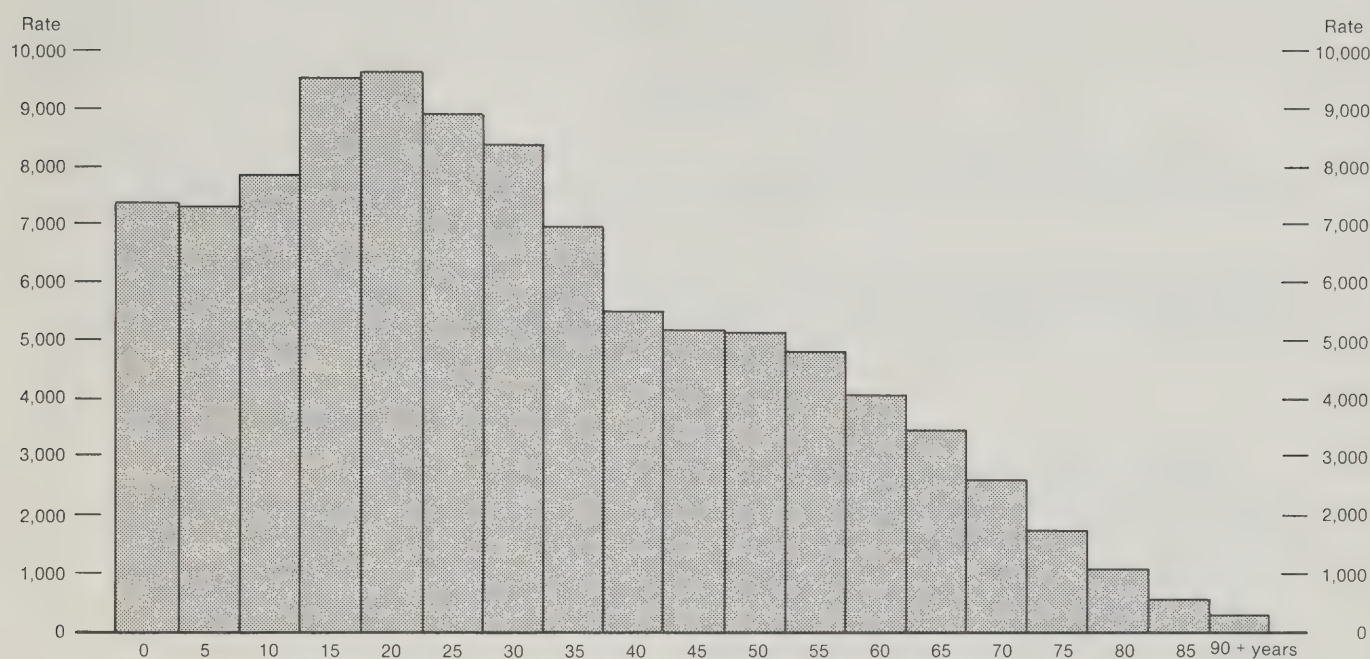
Many factors such as lifestyle, illness and mortality contribute more or less on life expectancy of youth in Canada. In the following chapters, these three aspects of health will be considered.

---

<sup>7</sup> Russell Wilkins and Owen B. Adams, "Health Expectancy in Canada, Late 1970s: Demographic, Regional and Social Dimensions", in the **American Journal of Public Health**, Vol. 73, No. 9, September 1983, pp. 1073-1080.



Chart — 1

**Population Distribution by Age (for a total population of 100,000), Canada, 1981**

Source: Final Intercensal Estimates, June 1, 1981.

**TABLE 1. Distribution of Health Expectancy by Sex and Age, Canada, 1978**

Age	Life expectancy			Disability-free life		
	Male	Female	Total	Male	Female	Total
At birth	70.8	78.3	74.6	59.2	62.8	61.0
15 years	57.2	64.5	60.9	46.2	49.4	47.8
25 "	48.1	54.8	51.5	37.6	40.4	39.0
45 "	29.6	35.7	32.7	20.6	23.6	22.1
65 "	14.4	18.7	16.7	8.2	9.9	9.1

**Source:** Russell Wilkins and Owen B. Adams, "Health Expectancy in Canada, Late 1970s: Demographic, Regional and Social Dimensions" in *American Journal of Public Health*, Vol. 73, No. 9, September 1983, p. 1078.





## CHAPTER II

### LIFESTYLE

Lifestyle is unquestionably one of the key factors in a person's health status. The use of alcohol and tobacco is known to contribute to some kinds of diseases, while physical activity and specific practices can prevent - or at least detect - some types of health problems.

Every day, men and women, young and old, make scores of decisions, develop habits or engage in activities that may affect their health. The earlier a habit is acquired, the more serious its consequences are likely to be. In this chapter on the lifestyles of young people, we will focus on alcohol and tobacco use, physical activity and preventive health practices.

#### 2.1 Alcohol Consumption

There are two types of risk associated with alcohol consumption. First, impaired driving is a major contributing factor to motor vehicle traffic fatalities. A Canadian working group has estimated that alcohol was involved in almost 2,700 road fatalities in 1980.<sup>1</sup> Expressed in terms of age-sex-specific rates, the drinking-driving fatality rate among men aged 15 to 24 was 42 per 100,000 population in 1980 - more than double the rate for men of all ages. Similarly, the highest drinking-driving fatality rate for women occurred in the 15 to 24 age group, at 8 per 100,000 population. Although the rate for young women was only one-fifth of that for young men, it was still twice that of the total female population. Second, over the course of their lifetimes, young drinkers are exposed to the risk of mortality and morbidity from other alcohol-related causes, such as cirrhosis of the liver. All told, the working group estimated that alcohol was involved in 1 in every 10 Canadian deaths in 1980.<sup>2</sup>

Table 2 reveals that drinking is starting at an increasingly young age, particularly among females. While most women currently in the 25-44 age group took their first drink when they were between 18 and 21, today girls are doing so at age 14 or 15.

Table 3 shows the percentage of drinkers by type of drinker and weekly volume of alcohol consumed for various age groups. The high non-response rate for the 15-19 group may be due to the fact that the questionnaire was completed at home. Approximately 76% of the youngest drinkers take at least one drink a week. In the 20-24 group, 87% of men and 71% of women also drink regularly. Considering the category of respondents who report they do not drink there is a marked difference between males and females in the age groups 20-24 and 25-44. This difference is much less pronounced for the 15-19 year age group, thus suggesting that women are increasingly exposing themselves to the risks inherent in drinking alcoholic beverages.

#### 2.2 Smoking

Tobacco smoking dates back a long time, but the long-term effects of tobacco addiction were unknown until the beginning of this century, when cigarette smoking became fashionable, particularly among men. In about 1920, reports began linking smoking with lung cancer, and more recently, with other types of cancer (larynx, esophagus, bladder and so on).<sup>3</sup> There is also evidence that smoking is detrimental to the growth of unborn children. One study has shown that perinatal mortality rate was 27% higher when the mother smoked.<sup>4</sup> Smokers, especially women using oral contraceptives, are also more susceptible to cardiovascular diseases.<sup>5</sup>

---

<sup>1</sup> Working Group on Alcohol Statistics, *Alcohol in Canada: A National Perspective*, Health and Welfare Canada, Ottawa, 1984, p. 46.

<sup>2</sup> Working Group on Alcohol Statistics, *op. cit.* p. 34.

<sup>3</sup> J. Ableson, P. Paddon and C. Strohmenger, *Perspectives on Health*, Statistics Canada, Catalogue 82-540E, Occasional, Ottawa, 1983, pp. 28-31.

<sup>4</sup> M.B. Meyer, B.S. Jonas and J.A. Tonascia, "Perinatal events associated with maternal smoking during pregnancy", *American Journal of Epidemiology*, Vol. 103, 1976, pp. 464-476.

<sup>5</sup> U.S. Department of Health and Human Services, *The Health Consequences of Smoking for Women: A Report of the Surgeon General*, Washington, D.C., 1980, pp. 98-101.

Studies have shown that the risk of disease or death varies with the number of cigarettes smoked daily, the age at which smoking started, and the duration of the smoking habit.<sup>6</sup>

In recent years, many Canadians have decided to quit smoking. Between 1966 and 1981, the proportion of Canadian male smokers decreased appreciably in every age group. Over that period, the proportions of smokers in the 15-19 and 20-24 age groups fell from 35 to 23% and 60 to 40% respectively. In Quebec alone, the proportion dropped from 48 to 32% in the 15-19 group and from 69 to 44% in the 20-24 group.

Between 1966 and 1972, the proportion of female smokers in the 25-44 group increased from 31 to 38%, declining to 33% in 1981 (Table 5). However the proportion of female smokers in the 15-19 group increased from 20 to 23% nationally and from 24 to 32% in Quebec during the 1966-1981 period.

Thus, larger numbers of young women would seem to be exposing themselves not only to the risks associated with drinking alcohol but also to the potential dangers of smoking. The differences between young men and women in the area of smoking and drinking habits are fading away.

### 2.3 Physical Activity

Regular physical activity is an important component of a healthy lifestyle. Table 6 shows the most common activities engaged in by the 15 to 24 age group, as reported to the Canada Fitness Survey. Walking, running and bicycling head the list for both men and women, followed by team sports for men and aquatic sports for women. Although walking, running and bicycling are equally popular in both age groups, there is a decrease in the frequency of team sports for men, and aquatic sports for women, in the 20-24 group.

Table 7, from the Canada Health Survey, shows the level of physical activity by age group. The table indicates that the 15-19 group is the most active in the population, and that the level of physical activity declines with age. While men are more likely than women to be "very active" in the 15 to 24 age group, their activity level is very similar to that of women aged 25 to 44.

A more detailed analysis of activity levels in the 10 to 19 age range from the Canada Fitness Survey shows that boys and girls develop quite different patterns. The proportion of girls in the most active category peaks at 74% at age 12-13, declining to 65% at age 18-19. In contrast, 77% of boys are in the most active category from age 10 to 17, followed by a sharp drop to 60% at age 18-19.<sup>7</sup>

### 2.4 Preventive Health Practices

As the old adage says, "An ounce of prevention is worth a pound of cure". This is particularly true when it comes to diseases and injuries. In fact, everyone takes many precautions every day, sometimes unknowingly, to safeguard his or her health.

Three preventive practices will be discussed here because of their effectiveness in preventing some common health problems: the Pap smear test and breast self-examination for early cancer detection and the use of seatbelts.

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<sup>6</sup> Health and Welfare Canada and Statistics Canada, *The Health of Canadians: Report of the Canada Health Survey*, Catalogue 82-538E, Ottawa, 1981.

<sup>7</sup> Canada Fitness Survey, *Canadian Youth and Physical Activity*, Ottawa, Fitness and Amateur Sport, 1983.



### 2.4.1 The Pap Smear Test

According to the conclusions of a 1982 report by the Task Force on Cervical Cancer Screening Programs,<sup>8</sup> there is no need for women over age 35 to undergo annual Pap tests if previous tests have been negative.

It is a different story for younger women, however. Because they are more active sexually, women between 18 and 35 are most susceptible to cervical cancer and should have a Pap test at least once a year.

In fact, a majority of women between 20 and 44 do have a Pap test at least once a year. On the other hand, 67% of females in the 15-19 group have never had a Pap test (Table 8).

### 2.4.2 Breast Self-examination

Since breast cancer is the leading cause of death among women between 35 and 54, it makes sense to discuss the practice of breast self-examination.<sup>9</sup> Nevertheless, according to the results of the Canada Health Survey, breast self-examination is less common among women under 25 and over 64 than among women in the 25-64 group. This survey and a number of other studies indicate that unmarried women (single, divorced or widowed) are less apt to conduct breast self-examinations, as are women in low-income groups.<sup>10</sup> A study carried out by Susan E. Bennett and others found no correlation between monthly breast self-examination and level of education.<sup>11</sup>

Table 9 shows that two of every three women in the youngest age group reported that they had never conducted a breast self-examination. Although the practice is more common among older women, particularly those between 25 and 44, it would appear to be an all too irregular habit in Canada's female population. According to Dr Cornelia J. Baines of the University of Toronto's department of preventive medicine and biostatistics, there are many possible reasons for this problem. Some women may fear that they will discover an abnormality that will require surgery, which they perceive as a mutilation or even a loss of their sexual identity. It is also possible that women avoid breast self-examination because they generally regard it as "ungratifying". Unlike personal hygiene activities, it provides no immediate feeling of well-being. Moreover, its success as a preventive measure implies the discovery rather than the cure of a disease.<sup>12</sup>

### 2.4.3 Use of Seatbelts

Because the use of seatbelts has been shown to reduce significantly the chances of serious injury or death in traffic accidents,<sup>13</sup> it is rightly considered one of the most important preventive measures that we can take in daily life. The wearing of seatbelts is compulsory in all provinces except Alberta and Prince Edward Island.

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<sup>8</sup> Cervical Cancer Screening Programs: The Walton Report, *Canadian Medical Association Journal*, 1976, Vol. 114 and 1982, Vol. 127, pp. 581-589.

<sup>9</sup> For a discussion of the issues surrounding the effectiveness of breast self-examination relative to other screening techniques, see: World Health Organization, *Self-examination in the Early Detection of Breast Cancer. A Review of the Evidence with Recommendations for Further Research*, A Report on a Consultation on Self-Examination in Breast Cancer, Early Detection Programmes, Geneva, November 1983.

Linda Del Greco and Walter O. Spitzer "Breast Self-Examination: A Call for Scientific Answers". *Canadian Journal of Public Health*, Vol. 75, November/December 1984, pp. 425-428.

<sup>10</sup> P. Manga, R. Broyles and D.E. Angus, *Factors Influencing Breast Self-examination, An Analysis of the Canada Health Survey*, Lecture given at the 74th Annual Conference of the Canadian Public Health Association in St John's, Newfoundland, June 1983.

<sup>11</sup> Susan E. Bennett et al., "Profile of Women Practicing Breast Self-examination", *Journal of American Medical Association*, Vol. 249, January 1983.

<sup>12</sup> Dr Cornelia J. Baines, "Some thoughts on why women don't do breast self-examination", *Canadian Medical Association Journal*, Vol. 128, February 1983, pp 255-256.

<sup>13</sup> Ableson et al., op. cit. p. 45.

Seatbelt use among people between 15 and 24 merits special attention since traffic accidents are a leading cause of death and injury in this group. In 1981, the traffic accident death rate was 42.2 per 100,000 population in the 15-19 age group and 42.5 per 100,000 in the 20-24 group.<sup>14</sup>

If we consider only those persons who drove a motor vehicle at some time in the two weeks preceding the Canada Health Survey, we find (see Table 10) that 39% of drivers aged 15-19, both male and female, always or almost always wore their seatbelts, compared with 50% of drivers aged 20-24. As passengers, 44 and 43% of these age groups respectively, always or almost always used their seatbelts (Table 11).

On the other hand, some 38% of people between 15 and 24 almost never fasten their seatbelts when they get behind the wheel. When they are passengers, 44% of them fail to use their seatbelts. Thus, despite numerous advertising campaigns promoting the use of seatbelts, many young people continue to run a higher risk of serious injury or death in traffic accidents.

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<sup>14</sup> For more details, see Chapter IV, p. 47.

**TABLE 2. Distribution of Drinkers Aged 15 to 44, by Age Drinking Began and Sex, Canada, 1978-1979**

		Age drinking began							
		Total	Under 14 years	14-15 years	16-17 years	18-19 years	20-21 years	22 years and over	Unknown
in thousands									
15-19 years:									
Male	No.	721	102	262	244	54	—	—	59
	%	100.0	14.2	36.3	33.9	7.5	—	—	8.1
Female	No.	597	66	225	205	47	—	—	54
	%	100.0	11.0	37.7	34.3	7.9	—	—	9.1
20-24 years:									
Male	No.	965	81	211	393	225	17	—	34
	%	100.0	8.4	21.8	40.8	23.3	1.8	—	3.6
Female	No.	789	33	135	327	233	28	—	26
	%	100.0	4.2	17.2	41.4	29.5	3.5	—	3.4
25-44 years:									
Male	No.	2,626	94	292	718	763	427	193	140
	%	100.0	3.6	11.1	27.3	29.0	16.3	7.4	5.3
Female	No.	2,073	16	124	343	636	511	314	127
	%	100.0	0.8	6.0	16.6	30.7	24.7	15.2	6.1

Source: Health and Welfare Canada and Statistics Canada, *The Health of Canadians: Report of the Canada Health Survey*, Catalogue 82-538E, Ottawa, 1981, p. 31.

**TABLE 3. Distribution of the Population Aged 15 to 44, by Type of Drinker, Weekly Volume of Alcohol Consumed, Age and Sex, Canada, 1978-1979**

		Type of drinker										
		Current drinkers and weekly volume consumed										Type of drinker un- known
		All types	Never drank	Former drinker	Occa- sional drinker	Total	Less than one drink	1-6 drinks	7-13 drinks	14 drinks or more	Weekly volume un- known	
in thousands												
15-19 years:												
Male	No.	1,187	188	16	163	721	120	267	132	149	52	100
	%	100.0	15.8	1.3	13.7	60.7	10.1	22.5	11.2	12.6	4.4	8.4
Female	No.	1,146	238	36	212	597	105	272	116	63	41	62
	%	100.0	20.8	3.1	18.5	52.1	9.1	23.7	10.2	5.5	3.6	5.4
20-24 years:												
Male	No.	1,106	38	23	63	965	81	283	230	343	28	18
	%	100.0	3.4	2.1	5.7	87.2	7.3	25.5	20.8	31.0	2.5	1.6
Female	No.	1,108	79	29	187	789	147	403	131	90	18	24
	%	100.0	7.2	2.6	16.9	71.1	13.2	36.4	11.8	8.1	1.6	2.2
25-44 years:												
Male	No.	3,230	109	114	318	2,626	188	910	628	699	202	63
	%	100.0	3.4	3.5	9.8	81.3	5.8	28.2	19.4	21.6	6.2	1.9
Female	No.	3,242	270	91	719	2,073	318	1,106	355	162	132	89
	%	100.0	8.3	2.8	22.2	63.9	9.8	34.1	10.9	5.0	4.1	2.8

Source: Health and Welfare Canada and Statistics Canada, *The Health of Canadians: Report of the Canada Health Survey*, Catalogue 82-538E, Ottawa, 1981, p. 28.



**TABLE 4. Percentage of Regular Cigarette Smokers in Men Aged 15 to 44, by Age, Canada and the Regions, 1966 to 1981**

	Canada	Atlantic	Quebec	Ontario	Prairies	British Columbia
15-19 years:						
1966	35.1	34.3	47.7	29.4	27.9	26.6Q
1972	35.0	37.5	44.0	30.4	31.2	27.4
1975	29.5	31.2	40.7	22.2	25.4	27.2
1977	26.9	27.5	31.3	24.5Q	25.8	--
1979	26.8	29.5	37.3	18.9	26.5	24.8Q
1981	22.8	27.0	31.8	18.5	19.2	16.4
20-24 years:						
1966	60.1	59.7	69.1	57.6	49.1	56.5
1972	52.6	53.9	61.3	47.8	47.5	49.5
1975	48.3	52.5	59.2	40.8	44.4	43.4
1977	45.2	49.2	48.3	42.0	45.6	42.3Q
1979	42.3	47.9	50.3	39.4	39.5	29.5Q
1981	39.9	45.2	44.5	38.2	36.2	35.2
25-44 years:						
1966	61.8	66.0	71.7	57.7	54.5	56.0
1972	53.3	54.1	62.2	50.4	47.0	47.9
1975	48.3	49.4	50.2	49.7	45.7	41.9
1977	47.0	50.9	53.5	44.7	44.3	39.6
1979	44.0	44.6	52.8	39.8	41.3	39.4
1981	42.6	44.3	48.7	39.2	42.6	37.3

Q Percentage based on a population too small to be representative.

Source: Health and Welfare Canada, *Smoking Behaviour of Canadians in 1981*, H39-66/1983E, Ottawa, 1983, p. 21.

**TABLE 5. Percentage of Regular Cigarette Smokers in Women Aged 15 to 44, by Age, Canada and the Regions, 1966 to 1981**

	Canada	Atlantic	Quebec	Ontario	Prairies	British Columbia
15-19 years:						
1966	20.0	17.8	23.7	17.6	18.0	24.4Q
1972	28.4	25.2	38.6	23.1	25.9	24.8Q
1975	27.4	24.4	33.3	24.2	26.3	26.4
1977	26.7	28.1	32.8	22.2Q	24.1	28.2Q
1979	26.0	22.8	33.0	22.3	25.9	23.1Q
1981	23.4	21.2	32.4	19.4	23.2	16.6
20-24 years:						
1966	43.4	40.5	41.8	42.9	44.7	50.0
1972	40.6	38.6	46.3	37.3	39.6	38.3
1975	38.3	40.5	40.9	33.1	39.7	43.1
1977	40.7	43.1	49.6	36.7	38.2	31.4Q
1979	39.8	42.6	45.9	34.6	40.5	37.9
1981	40.8	39.0	48.1	40.3	38.0	30.6
25-44 years:						
1966	31.4	41.1	41.2	40.2	40.5	43.8
1972	38.8	37.7	43.3	34.7	39.6	40.7
1975	37.0	38.8	39.3	36.1	36.6	33.1
1977	36.6	40.4	39.6	33.6	37.7	34.3
1979	36.0	38.2	40.6	33.1	36.1	31.9
1981	33.4	37.4	37.2	30.6	32.2	31.6

Q Percentage based on a population too small to be representative.

Source: Health and Welfare Canada, *Smoking Behaviour of Canadians in 1981*, H39-66/1983E, Ottawa, 1983, p. 22.

**TABLE 6. The Five Most Popular Activities in the Population Aged 15 to 24, by Sex and Age, Canada, 1981**

Male			
Activity	15-19 years	Activity	20-24 years
	number (in thousands)		number (in thousands)
1. Walking, running, bicycling	972	1. Walking, running, bicycling	924
2. Team sports	807	2. Team sports	684
3. Winter sports	712	3. One or two-person sports	683
4. Aquatic sports	701	4. Winter sports	664
5. Bicycling	692	5. Aquatic sports	645

Female			
Activity	15-19 years	Activity	20-24 years
	number (in thousands)		number (in thousands)
1. Walking, running, bicycling	1,014	1. Walking, running, bicycling	982
2. Aquatic sports	792	2. Walking	822
3. Walking	727	3. Aquatic sports	720
4. Exercises	713	4. Exercises	657
5. Winter sports	704	5. Indoor swimming	570

Source: Canada Fitness survey 1981, unpublished data.

**TABLE 7. Distribution of the Population Aged 15 to 44, by Level of Physical Activity and Sex, Canada, 1978-1979**

		Level of physical activity						
		Total	Sedentary	Moderately inactive	Moderate	Moderately active	Very active	Unknown
in thousands								
15-19 years:								
Male	No.	1,187	95	95	118	197	546	136
	%	100.0	8.0	8.0	10.0	16.6	46.0	11.5
Female	No.	1,146	88	181	176	249	361	90
	%	100.0	7.7	15.8	15.3	21.7	31.6	7.9
20-24 years:								
Male	No.	1,106	177	153	170	202	301	101
	%	100.0	16.0	13.9	15.4	18.3	27.3	9.2
Female	No.	1,108	158	269	208	207	174	93
	%	100.0	14.3	24.2	18.7	18.6	15.7	8.4
25-44 years:								
Male	No.	3,230	581	522	521	666	586	353
	%	100.0	18.0	16.2	16.1	20.6	18.1	10.9
Female	No.	3,242	307	740	694	685	500	317
	%	100.0	9.5	22.8	21.4	21.1	15.4	9.8

Source: Health and Welfare Canada and Statistics Canada, *The Health of Canadians: Report of the Canada Health Survey*, Catalogue 82-538E, Ottawa, 1981, p. 75.

**TABLE 8. Distribution of the Female Population Aged 15 to 44, by Age and Time since Last Pap Smear Test, Canada, 1978-1979**

		Total	Less than one year	1-2 years	More than two years	Never	Unknown
in thousands							
15-19 years	No.	1,146	221	50	21	767	87
	%	100.0	19.3	4.4	1.8	67.0	7.6
20-24 "	No.	1,108	692	152	36	193	35
	%	100.0	62.4	13.7	3.3	17.4	3.2
25-44 "	No.	3,242	1,809	709	443	185	97
	%	100.0	55.8	21.9	13.7	5.7	3.0

Source: Health and Welfare Canada and Statistics Canada, *The Health of Canadians: Report of the Canada Health Survey*, Catalogue 82-538E, Ottawa, 1981, p. 185.

**TABLE 9. Distribution of the Female Population Aged 15 to 44, by Age and Frequency of Breast Self-examination, Canada, 1978-1979**

		Total	Monthly	Quarterly	Less often	Never	Don't know how	Unknown
in thousands								
15-19 years	No.	1,146	106	92	132	684	102	29
	%	100.0	9.2	8.0	11.5	59.7	8.9	2.5
20-24 "	No.	1,108	243	229	231	300	91	--
	%	100.0	21.9	20.6	20.8	27.1	8.2	--
25-44 "	No.	3,242	764	803	700	739	194	42
	%	100.0	23.6	24.8	21.6	22.8	6.0	1.3

Source: Health and Welfare Canada and Statistics Canada, *The Health of Canadians: Report of the Canada Health Survey*, Catalogue 82-538E, Ottawa, 1981, p. 186.



**TABLE 10. Distribution of the Population Aged 15 to 24, by Sex and Seatbelt Use when Driving, Canada, 1978-1979**

		Seatbelt use when driving				
		Always or most of the time	Rarely or never	Did not answer	Not applicable <sup>1</sup>	Total
in thousands						
15-19 years:						
Male	No.	270	236	178	503	1,187
	%	22.7	19.9	15.0	42.4	100.0
Female	No.	181	142	148	675	1,146
	%	15.8	12.4	12.9	58.9	100.0
20-24 years:						
Male	No.	415	364	59	268	1,106
	%	37.5	32.9	5.3	24.2	100.0
Female	No.	355	272	86	396	1,108
	%	32.0	24.5	7.8	35.7	100.0

<sup>1</sup> Refers to persons who answered the question but had not driven in the preceding two weeks.

Source: Canada Health Survey, unpublished data.

**TABLE 11. Distribution of the Population Aged 15 to 24, by Sex and Seatbelt Use when Passenger, Canada, 1978-1979**

		Seatbelt use when passenger				
		Always or most of the time	Rarely or never	Did not answer	Not applicable <sup>1</sup>	Total
in thousands						
15-19 years:						
Male	No.	443	437	133	174	1,187
	%	37.3	36.8	11.2	14.7	100.0
Female	No.	443	443	128	132	1,146
	%	38.7	38.7	11.2	11.5	100.0
20-24 years:						
Male	No.	304	337	104	361	1,106
	%	27.5	30.5	9.4	32.6	100.0
Female	No.	416	432	93	167	1,108
	%	37.5	39.0	8.4	15.1	100.0

<sup>1</sup> Refers to persons who answered the question but had not been a passenger in an automobile in the preceding two weeks.

Source: Canada Health Survey, unpublished data.



## CHAPTER III

### SEXUALITY

Not so long ago, sexuality was a subject discussed only in the adult world. Now, according to the Québec Conseil des affaires sociales et de la famille, the veil of secrecy has, at least in part, been lifted and sexuality is clearly a part of adolescent culture.<sup>1</sup>

However, sexuality sometimes involves decisions that may have an impact on the physical - and perhaps even mental - health of individuals, especially women. In particular, these decisions have to do with contraception and motherhood. Furthermore, leading a sexually active life means taking some risks, including contracting venereal diseases, the most common of which are syphilis and gonorrhea.

Sexual activity is certainly no more risky for young people than for their elders, but any unfortunate consequences could be more serious for persons who are still laying the groundwork for their adult lives.

#### 3.1 Contraception

There are, of course, a variety of contraceptive methods, including the rhythm method, oral contraceptives, mechanical/chemical methods and intrauterine devices. The effectiveness of each of these methods, measured in terms of a "failure rate" or "pregnancy rate", is common knowledge today. If no contraception is used, between 70 and 80 pregnancies can be expected per 100 women having regular sexual intercourse over a one-year period.<sup>2</sup>

At present, we have no statistics on the use of the various methods, with the exception of oral contraceptives. In the Canada Health Survey, 17% of teen-age women and 42% of women aged 20 to 24 reported that they were using birth-control pills, compared with 16% of women aged between 25 and 44 (Table 12).

Over the past 20 years, there have been many studies of the pill's physiological effects. While a number of points remain controversial, some findings are widely accepted today.

The use of oral contraceptives combined with smoking significantly increases the risk of cardiovascular disease, especially among women over 30.<sup>3</sup> Although the pill may contribute to the development of an existing disorder of the breasts or the uterus, it causes no known type of cancer.<sup>4</sup> On the contrary, it probably reduces the incidence of endometrial and ovarian cancer.<sup>5</sup> Particularly important for sexually active adolescents is the fact that oral contraceptives appear to lower the risk of acute pelvic inflammation, a leading cause of sterility.<sup>6</sup>

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<sup>1</sup> Government of Quebec, *L'éducation sexuelle à l'école: une nécessité*, Conseil des affaires sociales et de la famille, Québec, February 1982.

<sup>2</sup> Edward E. Johnston, *Current Methods of Contraception*, Revised edition, Kingston, Ontario, 1978, p. 4.

<sup>3</sup> Allan Rosenfield, "The Pill: An Evaluation of Recent Studies", *The Johns Hopkins Medical Journal*, Vol. 150, No. 5, May 1982, pp. 177-180.

<sup>4</sup> Johnston, *op. cit.*, p. 14.

<sup>5</sup> Rosenfield, *loc. cit.*, p. 178.

<sup>6</sup> Rosenfield, *loc. cit.*, p. 179.



In any case, there is increasing concern among scientists about the age at which the pill is being prescribed.<sup>7</sup> A 1978 report by the WHO states that "the high level of acceptance of steroid contraceptives represents a potential health problem, in that large numbers of healthy young women are taking potent steroid drugs for prolonged periods of time".<sup>8</sup>

### 3.2 Fertility

The fertility of a population denotes not the number of children that the population is capable of having, but rather the number that it actually does have. Furthermore, unlike the birth rate, which is the frequency of births in the total population, fertility is generally taken to be the frequency of births in the population of childbearing age (between 15 and 49).

The study of fertility - and consequently of all phenomena directly connected with reproduction - is important not only for the formulation of various policies and the calculation of population projections, but also for the planning of health services as childbirth usually entails hospitalization or, at the very least, the presence of health professionals. Although childbearing is no longer among the leading causes of death, women are not immune from complications associated with pregnancy, labour or the puerperium and sometimes need more than routine obstetrical care.

In examining the fertility of women between 15 and 24, we will be using age-specific fertility rates for women of all marital statuses. The rate for each age is obtained by dividing the number of live births to women of a specific age during a year by the total female population of the same age. The result is usually expressed in terms of births per thousand.

Table 13, which lists the fertility rates for women of various age groups between 1966 and 1981, shows that fertility declined over that period.

The fertility rate of the 15-19 group dropped from 48 per 1,000 in 1966 to 26 in 1981, a decrease of 45%. Over the same period, the fertility rate of the 20-24 group fell from 169 to 97 per 1,000, a drop of 43%. However, women between 40 and 44 posted the sharpest decline, as their fertility rate plunged by 83%.

### 3.3 Births

It would be inappropriate, in discussing health and fertility, to ignore the health status of the children born to the population being studied. The most reliable indicator is the newborn's weight, often an important factor in the child's growth. Babies having a birth weight of 2 500 grams or less are generally considered to be underweight.

Table 14 indicates that since 1971 there has been a slight decline in the proportion of underweight babies born to women between 15 and 44. It is worth noting that women between 15 and 19 had the highest percentage of underweight babies.

In 1981, 6% of babies born to women in the 20-24 and 25-44 age groups respectively were found to weigh 2 500 grams or less at birth. Among births to women in the 15-19 group, the proportion of underweight babies was 8%.

### 3.4 Therapeutic Abortions

No consensus has yet been reached regarding the physical and psychological consequences of abortion. Among the many researchers and organizations who have investigated this

<sup>7</sup> Diane Grenon-Plante, "La contraception: oui, mais à quel prix?" in *L'Infirmière canadienne*, November 1982, pp. 27-31.

<sup>8</sup> World Health Organization, *Steroid Contraception and the Risk of Neoplasia*, Technical Report Series No. 619, Geneva, WHO, 1978, p. 5.

problem, the Ligue des droits de l'homme provided the best summary of the controversy over the psychological consequences when it stated that under certain conditions, abortion is harmful to the woman's health, and under other conditions, it has therapeutic value.<sup>9</sup>

Nevertheless, like any surgical procedure - like pregnancy itself, according to a number of commentators - abortion involves risks. A recent analysis of Canadian abortion statistics has shown that the abortion complication rate was highest for women under 20 (4.1%). The risk of early complication of abortion increased with the length of gestation period. For women obtaining abortion at 13 weeks and over, the risk of early complication was 10 times greater than the risk for women obtaining abortions under that period.<sup>10</sup>

The abortion law, as amended in 1969, states that a pregnancy may be terminated only by a qualified medical practitioner in an accredited or approved hospital and only if the hospital's therapeutic abortion committee certifies that continuation of the pregnancy would, or would be likely to, endanger the life or health of the pregnant woman.<sup>11</sup>

The data presented in the paragraphs that follow refer only to therapeutic abortions performed in the 269 Canadian hospitals with therapeutic abortion committees and reported monthly to Statistics Canada, either by the provincial departments of health or, in some cases, directly by the hospitals.

### 3.4.1 Therapeutic Abortions by Age

In 1981, 64,554 therapeutic abortions were performed in Canada on Canadian women - 17,725 in the 15-19 group, 20,864 in the 20-24 group and 25,319 in the 25-44 group (Table 15). These figures translate into abortion rates of 16 per 1,000 in the 15-19 group and 18 per 1,000 in the 20-24 group, compared with 7 per 1,000 in the 25-44 group (Table 15).

Examination of the change in abortion rates for these three groups since 1974 reveals an overall increase of 45% and 50% in the 15-19 and 20-24 groups respectively, compared with a 17% increase in the 25-44 group. However, the movement of the rates was somewhat irregular. After an initial jump of 17%, the abortion rate for the 25-44 group remained stable between 1976 and 1981. The rates for the younger groups did not stabilize until 1978 and 1979. The abortion rate rose 36% between 1974 and 1977 in the 15-19 group and 42% between 1974 and 1978 in the 20-24 group.

Table 16 provides abortion rates based on the number of therapeutic abortions per 100 live births for 1974 through 1981. For the 25-44 group, the rate edged up from 9 to 11 abortions per 100 live births. For the 20-24 group, the rate increased from 11 to 19, and for the 15-19 group, from 33 to 61. In the latter two groups, the rate has been stable since 1979.

### 3.4.2 By Age and Province of Residence

Table 17 reveals that the proportion of therapeutic abortions in each age group varies substantially with the province of residence of the women on whom the procedure is performed.

<sup>9</sup> Ligue des droits de l'homme, *La société québécoise face à l'avortement*, Ottawa, Éditions Leméac Inc., 1974, p. 68.

<sup>10</sup> S. Wadhera, "Early Complication Risks of Legal Abortions, Canada, 1975-1980", *Canadian Journal of Public Health*, Vol. 73, November/December 1982, pp. 396-400.

<sup>11</sup> Statistics Canada, *Therapeutic Abortions*, Catalogue 82-211, Annual, Ottawa, 1982, p. 11.

In the 15-19 group, Saskatchewan and Quebec had the highest and lowest percentages (38% and 21%) of therapeutic abortions respectively in 1981. The highest percentage of abortions in the 20-24 group was recorded by Alberta (37%) and the lowest by Prince Edward Island (26%). In the 25-44 group, Quebec posted the highest percentage (47%) and New Brunswick the lowest (25%). When these numbers are expressed as age-specific rates per 1,000 females, it is observed that the highest rates are found in British Columbia, the Yukon and Northwest Territories, followed by Ontario and Alberta.

### 3.4.3 By Gestation Period

We mentioned earlier that the time of pregnancy termination often affects the risks of the operation, since it determines the abortion method used.

Where the gestation period is under 16 weeks, instrumental methods (suction, surgical dilatation and curettage) are commonly used. These procedures entail a much lower risk of complication relative to other procedures used for pregnancy termination.

Between the 16th and 24th week, a pregnancy may also be terminated by means of saline solution injections. However, this method is subject to a fairly high rate of complications. In other words, "the earlier the pregnancy is interrupted and the simpler the procedure is, the safer it is for the woman".<sup>12</sup>

In all age groups, most abortions during 1981 were performed between the 9th and 12th week of gestation. In particular, for women between 15 and 24, this is the case 62% of the time (Table 18).

For women between 25 and 44, 32% of abortions were carried out before the 9th week, compared with only 19% and 24% of abortions performed on women aged 15 to 19 and 20 to 24 respectively.

### 3.4.4 By Number of Previous Abortions

One of the risks is that abortion may leave a woman sterile or at least unable to conceive viable offspring. Some studies have found that this risk is particularly high for women who have had more than two abortions and even higher if they have never given birth.<sup>13</sup>

Table 19 shows that, of women in the 15-19 and 20-24 age groups who had abortions in 1981, 7% and 16% respectively had had a previous abortion. The corresponding figures in 1976 were 5% and 11%.

## 3.5 Sexually Transmitted Diseases

There are a number of diseases known to be transmitted, solely or primarily, by sexual contact. Some, such as non-gonococcal urethritis (NGU), are found only in males, while others, such as trichomonal vaginitis, are caused by microscopic organisms that seem able to survive only in females. Still others, such as Nicolas-Favre disease (LGV) and granuloma inguinale, are rare in North America and not particularly contagious.

<sup>12</sup> Health and Welfare Canada, *Facts and Fancy about Birth Control, Sex Education and Family Planning*, Health Promotion Directorate, Ottawa, 1979, p.41.

<sup>13</sup> Tietze, op. cit. p. 85.



The same cannot be said, however, of syphilis and gonorrhea. Not only has the latter reached the pandemic stage, but the strains of bacteria that cause it are becoming increasingly resistant to penicillin. Syphilis, while less common than gonorrhea, is just as dangerous. Gonorrhea's symptoms are serious and extremely unpleasant (possibly resulting in sterility), but syphilis can kill.<sup>14</sup>

### 3.5.1 Syphilis

As Table 20 indicates, the number of new cases of syphilis declined very sharply between 1978 and 1982.

Over this period, the rate of new cases among women aged 15 to 19 and 20 to 24 dropped by 62% and 53% respectively. On the other hand, the rate among males fell 26% in the 15-19 group and only 11% in the 20-24 group.

Prior to 1980, the incidence of syphilis in the 15-19 group appeared to be higher among females. Subsequently, men - in every age group - posted higher rates of new cases than women.

In 1982, for example, males in the 15-19 and 20-24 groups had new case rates of 3 and 20 per 100,000 population. The corresponding figures for females in these age groups were 2 and 5 per 100,000.

According to a geographic breakdown of new cases of syphilis (Table 21), Ontario's new case rate for males between 15 and 19 was 35% above the national average in 1982. British Columbia had the highest rate for males between 20 and 24. For females, the highest rates in the 15-19 and 20-24 groups were recorded by Quebec and Ontario respectively.

### 3.5.2 Gonorrhea

While new cases of syphilis are on the decline, the same cannot be said for gonorrhea. Although there was a slight decrease between 1981 and 1982, the rate of new cases has been rising in the 15-24 group and has remained fairly stable in the 25 and over group since 1978 (Table 22).

The 20-24 group had the highest rate of new cases of gonorrhea. In this group, the majority of the victims are male, whereas in the 15-19 group, the incidence is higher among females.

The geographic breakdown given in Table 23 shows that the rate of new cases of gonorrhea increases from east to west. In the Prairie region, the rate for the 15-19 group, both male and female, is 120% above the national rate. Moreover, the rate for females in this group is double the rate for males. The Prairie region also recorded the highest rate for the 20-24 group.<sup>15</sup>

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<sup>14</sup> *Les maladies transmises sexuellement*, Les Presses de la Santé de Montréal Inc., Montréal 1976, p. 31.

<sup>15</sup> The Yukon and Northwest Territories are not considered in the analysis because their small populations make comparison of new case rates impossible.

**TABLE 12. Distribution of the Female Population Aged 15 to 24, by Age and Use of Birth Control Pills, Canada, 1978-1979**

		Total	Use birth control pills	Do not use birth control pills	Unknown
in thousands					
15-19 years	No.	1,146	198	924	22
	%	100.0	17.3	80.7	1.9
20-24 "	No.	1,108	462	624	20
	%	100.0	41.7	56.3	1.8
25-44 "	No.	3,242	523	2,671	48
	%	100.0	16.1	82.4	1.5

Source: Health and Welfare Canada and Statistics Canada, **The Health of Canadians: Report of the Canada Health Survey**, Catalogue 82-538E, Ottawa, 1981, p. 184.

**TABLE 13. Fertility Rate per 1,000 Women by Age Group, Canada, 1966, 1971, 1976 and 1981<sup>1</sup>**

	1966	1971	1976	1981
in thousands				
15-19 years	48.2	40.1	33.4	26.4
20-24 "	169.1	134.4	110.3	96.7
25-29 "	163.5	142.0	129.9	126.9
30-34 "	103.3	77.3	65.6	68.0
35-39 "	57.5	33.6	21.1	19.4
40-44 "	19.1	9.4	4.3	3.2

<sup>1</sup> Newfoundland excluded.

Source: Statistics Canada, **Vital Statistics**, Vol. I, Births and Deaths, Catalogue 84-204, Annual, Ottawa, 1966, 1971, 1976 and 1981.

**TABLE 14. Distribution of Live Births, by Birth Weight and Age of Mother, Canada, 1971, 1976 and 1981**

	1971		1976		1981	
	Number	Percentage	Number	Percentage	Number	Percentage
Underweight, 2 500 g or under:						
15-19 years	3,690	9.2	2,964	8.0	2,299	7.9
20-24 "	9,265	7.4	7,601	6.6	7,095	6.4
25-44 "	13,287	7.2	11,822	6.1	12,325	5.6
Adequate weight, 2 501 g or over:						
15-19 years	36,471	90.8	33,542	90.7	26,730	92.0
20-24 "	114,998	92.5	105,263	91.7	103,373	93.5
25-44 "	170,346	92.7	178,242	91.7	208,237	94.4
Weight not specified:						
15-19 years	27	0.07	473	1.3	33	0.11
20-24 "	47	0.04	1,934	1.7	84	0.08
25-44 "	67	0.04	4,274	2.2	128	0.06
Total live births:						
15-19 years	40,188	100	36,979	100	29,062	100
20-24 "	124,310	100	114,798	100	110,552	100
25-44 "	183,700	100	194,338	100	220,690	100

Source: Statistics Canada, Vital Statistics, Vol. I, Births and Deaths, Catalogue 84-204, Annual, Ottawa, 1971, 1976 and 1981.

**TABLE 15. Distribution of Therapeutic Abortions Performed in Canada, by Age, 1974 to 1981 (Rate per 1,000 Women)**

Canada	1974		1975		1976		1977	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
15-19 years	12,481	11	14,763	13	15,952	14	16,916	15
20-24 "	12,081	12	14,268	14	16,033	15	17,307	16
25-44 "	16,018	6	19,266	6	21,292	7	22,041	7
	1978		1979		1980		1981	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
15-19 years	18,232	16	18,966	16	18,796	16	17,725	16
20-24 "	19,095	17	20,364	18	20,760	18	20,864	18
25-44 "	23,726	7	24,450	7	24,998	7	25,319	7

Source: Statistics Canada, Therapeutic Abortions, Catalogue 82-211, Annual, Ottawa, 1974 to 1981.



**TABLE 16. Number of Abortions<sup>1</sup> per 100 Live Births, by Selected Age Groups, Canada, 1974 to 1981**

	Live births	Abortions	Abortions per 100 live births
15-19 years:			
1974	38,314	12,438	33
1975	38,818	14,716	38
1976	37,402	15,809	42
1977	35,971	16,733	47
1978	33,703	18,053	54
1979	31,649	18,739	59
1980	31,000	18,612	60
1981	29,062	17,573	61
20-24 years:			
1974	111,409	12,029	11
1975	115,615	14,222	12
1976	114,924	15,904	14
1977	115,518	17,163	15
1978	112,778	18,902	17
1979	112,894	20,145	18
1980	112,542	20,584	18
1981	110,552	20,724	19
25-44 years:			
1974	184,846	15,936	9
1975	190,666	19,188	10
1976	193,779	21,159	11
1977	199,033	21,897	11
1978	201,368	23,574	12
1979	210,684	24,272	12
1980	215,677	24,828	12
1981	220,690	25,154	11

<sup>1</sup> Newfoundland excluded.

Source: Statistics Canada, Health Division, Institutional Care Section, unpublished data.

**TABLE 17. Distribution of Therapeutic Abortions Performed in Canada, by Age and Province of Residence, 1981**

		Total	15-19 years	20-24 years	25-44 years
Canada	No.	64,554	17,725	20,864	25,319
	%	100	27	32	39
	Rate <sup>1</sup>		15.7	17.8	7.1
Newfoundland	No.	470	152	140	165
	%		32	30	35
	Rate <sup>1</sup>		4.9	5.4	2.1
Prince Edward Island	No.	27	8	7	11
	%		30	26	41
	Rate <sup>1</sup>		1.3	1.3	0.7
Nova Scotia	No.	1,689	545	569	553
	%		32	34	33
	Rate <sup>1</sup>		13.0	14.6	4.7
New Brunswick	No.	444	157	161	111
	%		35	36	25
	Rate <sup>1</sup>		4.5	5.0	1.2
Quebec	No.	9,042	1,888	2,796	4,280
	%		21	31	47
	Rate <sup>1</sup>		6.2	8.7	4.4
Ontario	No.	30,463	8,437	9,565	12,186
	%		28	31	40
	Rate <sup>1</sup>		21.3	24.1	9.6
Manitoba	No.	1,610	502	535	543
	%		31	33	34
	Rate <sup>1</sup>		10.6	11.4	3.9
Saskatchewan	No.	1,627	613	536	459
	%		38	33	28
	Rate <sup>1</sup>		13.1	12.2	3.8
Alberta	No.	6,757	2,125	2,467	2,093
	%		31	37	31
	Rate <sup>1</sup>		20.3	19.4	6.3
British Columbia	No.	12,123	3,218	3,980	4,813
	%		27	33	40
	Rate <sup>1</sup>		27.5	31.5	11.7
Yukon	No.	123	30	44	49
	%		24	36	40
	Rate <sup>1</sup>		30.0	36.7	12.0
Northwest Territories	No.	179	50	64	56
	%		28	36	31
	Rate <sup>1</sup>		20.0	27.8	8.6

<sup>1</sup> Rate per 1,000 females.

Source: Statistics Canada, **Therapeutic Abortions**, Catalogue 82-211, Annual, Ottawa, 1981, p. 54.

**TABLE 18. Distribution of Therapeutic Abortions, by Gestation Weeks and Age, Canada, 1981**

	15-19 years		20-24 years		25-44 years	
	Number	Percentage	Number	Percentage	Number	Percentage
Under 9 weeks	3,309	18.7	4,964	23.8	8,057	31.8
9-12 weeks	11,050	62.3	12,991	62.3	14,987	59.2
13-16 "	2,407	13.6	2,192	10.5	1,740	6.9
17-20 "	916	5.2	668	3.2	469	1.9
20 weeks and over	43	0.2	49	0.2	66	0.3
<b>Total</b>	<b>17,725</b>	<b>100.0</b>	<b>20,864</b>	<b>100.0</b>	<b>25,319</b>	<b>100.0</b>

Source: Statistics Canada, *Therapeutic Abortions*, Catalogue 82-211, Annual, Ottawa, 1981, p. 82.

**TABLE 19. Distribution of Therapeutic Abortions, by Number of Previous Abortions and Age, Canada, 1976 and 1981**

Number of abortions	1976					
	15-19 years		20-24 years		25-44 years	
	Number	Percentage	Number	Percentage	Number	Percentage
0	14,794	92.7	13,669	85.3	18,006	84.6
1	779	4.9	1,775	11.1	2,195	10.3
2 or more	38	0.2	155	1.0	442	2.1
Unknown	341	2.1	434	2.7	649	3.0
<b>Total</b>	<b>15,952</b>	<b>100.0</b>	<b>16,033</b>	<b>100.0</b>	<b>21,292</b>	<b>100.0</b>
	1981					
	15-19 years		20-24 years		25-44 years	
	Number	Percentage	Number	Percentage	Number	Percentage
0	15,974	90.1	16,675	79.9	19,275	76.1
1	1,259	7.1	3,244	15.5	4,289	16.9
2 or more	80	0.5	490	2.3	1,158	4.6
Unknown	412	2.3	455	2.2	597	2.4
<b>Total</b>	<b>17,725</b>	<b>100.0</b>	<b>20,864</b>	<b>100.0</b>	<b>25,319</b>	<b>100.0</b>

Source: Statistics Canada, *Therapeutic Abortions*, Catalogue 82-211, Annual, Ottawa, 1976, p. 66 and 1981, p. 60.



**TABLE 20. Distribution of New Cases of Syphilis, by Sex and Age, Canada, 1978 to 1982  
(Rate per 100,000 Population)<sup>1</sup>**

		1978		1979		1980		1981		1982	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Syphilis:											
15-19 years	No.	49	60	49	60	63	35	43	24	35	22
	Rate	4.2	5.4	4.2	5.4	5.5	3.2	3.7	2.1	3.1	2.0
20-24 "	No.	243	109	231	101	261	78	255	93	239	55
	Rate	22.6	10.1	21.1	9.3	23.5	7.1	21.8	8.0	20.2	4.7
25-39 "	No.	902	228	924	294	993	240	1,041	239	910	181
	Rate	35.2	9.0	35.0	11.2	36.3	8.8	35.7	8.2	30.4	6.1
40-59 "	No.	494	250	447	248	473	255	442	236	366	143
	Rate	21.3	10.6	19.0	10.4	19.9	10.6	17.8	9.4	14.6	5.7
<b>Total</b>	<b>No.</b>	<b>1,688</b>	<b>647</b>	<b>1,651</b>	<b>703</b>	<b>1,790</b>	<b>608</b>	<b>1,781</b>	<b>592</b>	<b>1,550</b>	<b>401</b>

<sup>1</sup> Excluding Nova Scotia (1978-1980) and Prince Edward Island (1978-1982).

Source: Statistics Canada, Health Division, Vital Statistics and Disease Registries Section, 1978-1982.

**TABLE 21. Distribution of New Cases of Syphilis, by Sex and Age, Canada and the Regions, 1982 (Rate per 100,000 Population)**

		Canada <sup>1</sup>		Atlantic <sup>1</sup>		Quebec		Ontario	
		Male	Female	Male	Female	Male	Female	Male	Female
Syphilis:									
15-19 years	No.	35	22	—	—	11	8	17	7
	Rate	3.1	2.0	—	—	3.6	2.8	4.2	1.8
20-24 "	No.	239	55	2	—	88	17	86	22
	Rate	20.2	4.7	2.0	—	27.3	5.3	21.4	5.5
25-39 "	No.	910	181	3	3	314	58	339	77
	Rate	30.4	6.1	1.2	1.2	38.5	7.1	33.1	7.3
40-59 "	No.	366	143	1	1	86	29	186	81
	Rate	14.6	5.7	0.5	0.5	12.8	4.2	19.7	8.5
		Prairies		British Columbia		Yukon		Northwest Territories	
		Male	Female	Male	Female	Male	Female	Male	Female
Syphilis:									
15-19 years	No.	4	6	3	1	—	—	—	—
	Rate	2.0	3.1	2.5	0.9	—	—	—	—
20-24 "	No.	24	10	39	6	—	—	—	—
	Rate	10.4	4.5	30.9	4.7	—	—	—	—
25-39 "	No.	95	34	159	9	—	—	—	—
	Rate	17.3	6.6	45.5	2.6	—	—	—	—
40-59 "	No.	48	27	45	5	—	—	—	—
	Rate	11.8	6.8	15.4	1.8	—	—	—	—

<sup>1</sup> Prince Edward Island excluded.

Source: Statistics Canada, Vital Statistics and Disease Registries Section, 1982.

**TABLE 22. Distribution of New Cases of Gonorrhea, by Sex and Age, Canada, 1978 to 1982 (Rate per 100,000 Population)<sup>1</sup>**

		1978		1979		1980		1981		1982	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Gonorrhea:											
15-19 years	No.	3,693	5,385	3,803	5,891	3,921	6,075	4,435	6,932	4,063	6,563
	Rate	320.1	483.5	329.4	529.1	340.8	548.3	377.3	615.3	355.7	602.4
20-24 "	No.	9,831	6,596	10,558	6,858	10,821	7,234	11,991	8,034	11,239	7,816
	Rate	912.4	613.8	965.0	629.8	973.3	654.9	1,025.7	690.2	950.4	667.6
25-39 "	No.	13,112	4,710	13,276	5,002	14,047	5,242	14,865	5,597	13,709	5,262
	Rate	511.8	185.8	503.0	190.9	514.1	192.8	510.0	192.7	457.5	176.0
40-59 "	No.	2,015	418	2,013	436	2,241	436	2,179	476	2,169	422
	Rate	86.8	17.8	85.6	18.4	94.3	18.2	87.6	19.0	86.3	16.7
<b>Total</b>	<b>No.</b>	<b>28,651</b>	<b>17,109</b>	<b>29,650</b>	<b>18,187</b>	<b>31,030</b>	<b>18,987</b>	<b>33,470</b>	<b>21,039</b>	<b>31,180</b>	<b>20,063</b>

<sup>1</sup> Excluding Nova Scotia (1978-80) and Prince Edward Island (1978-1982).

Source: Statistics Canada, Health Division, Vital Statistics and Disease Registries Section, 1978-1982.

**TABLE 23. Distribution of New Cases of Gonorrhea, by Sex and Age, Canada and the Regions, 1982 (Rate per 100,000 Population)**

		Canada <sup>1</sup>		Atlantic <sup>1</sup>		Quebec		Ontario	
		Male	Female	Male	Female	Male	Female	Male	Female
Gonorrhea:									
15-19 years	No.	4,063	6,563	190	273	381	643	1,122	1,974
	Rate	355.7	602.4	171.7	258.5	125.6	221.5	278.0	514.0
20-24 "	No.	11,239	7,816	420	324	1,145	876	3,656	2,495
	Rate	950.4	667.6	430.4	331.4	355.6	274.9	911.5	620.9
25-39 "	No.	13,709	5,262	338	188	1,547	752	4,465	1,615
	Rate	457.5	176.0	136.8	76.1	189.6	92.0	435.3	153.5
40-59 "	No.	2,169	422	50	15	163	62	561	119
	Rate	86.2	16.7	25.8	7.7	24.3	8.9	59.5	12.5
		Prairies		British Columbia		Yukon		Northwest Territories	
		Male	Female	Male	Female	Male	Female	Male	Female
Gonorrhea:									
15-19 years	No.	1,614	2,520	485	870	26	46	245	237
	Rate	799.6	1,309.2	408.3	765.8	--	--	--	--
20-24 "	No.	3,903	2,699	1,654	1,214	54	32	407	176
	Rate	1,683.7	1,214.8	1,308.9	959.3	--	--	--	--
25-39 "	No.	4,280	1,659	2,621	890	59	28	399	130
	Rate	780.0	320.7	749.6	256.5	--	--	--	--
40-59 "	No.	857	148	444	61	9	--	85	17
	Rate	210.6	37.4	152.0	21.4	--	--	--	--

<sup>1</sup> Prince Edward Island excluded.

Source: Statistics Canada, Vital Statistics and Disease Registries Section, 1982.

## CHAPTER IV

### HEALTH STATUS

So far we have examined the propensity of young people to acquire habits that may, sooner or later, affect their health. We have also discussed the risks associated with sexual activity. We will now tackle the question of whether young people are currently in good or poor health.

Unfortunately, there is no short answer to this question. Not only is it necessary to determine the health status of an entire population - not just one person or even a small group - but both their physical and mental health must also be studied. However, by observing some facts and trends - such as visits to a physician, drug use, morbidity, mortality, the incidence of mental problems and suicide - we should be able to come to some conclusions about the health status of the population aged 15 to 24.

First, though, we shall look at their physical fitness, unquestionably the key to the harmonious functioning of mind and body.

#### A. PHYSICAL FITNESS

Being fit makes us look and feel well. Not only that, it protects us from serious problems and injuries that could result from strenuous exercise or activity, and it helps us fight some diseases and even release certain emotions.

However, physical activity alone does not entitle one to such a "health passport". A person may walk a lot, do some gardening and engage in other equally healthful activities, yet not be in good shape. Heredity, eating habits and lifestyle factors also have a major impact on one's physical fitness.

A series of tests, known as the Standardized Test of Fitness, is used by Fitness Canada to measure the principal components of physical fitness: aerobic capacity, flexibility, muscular strength and endurance, and body measurements (anthropometric information). The results obtained for the 15-24 group are given in the paragraphs that follow.

#### 4.1 Aerobic Capacity

Aerobic capacity, commonly known as cardiovascular fitness or stamina, refers to the capacity to engage in prolonged physical activity and hence to the ability of the heart and lungs efficiently to supply the muscles with the oxygen they need to produce energy.<sup>1</sup> Most physiologists consider it the most important component of physical fitness. High aerobic capacity makes it possible to engage in activities such as jogging with less effort and better performance.

Aerobic capacity is measured with the so-called step test. Table 24 shows that in 1981, 56% of males between 15 and 19 were at the recommended level, while 50% of those between 20 and 29<sup>2</sup> attained the minimum level and only 35% the recommended level. For the sake of comparison, 53% of males in the 30-39 group were at the latter level.

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<sup>1</sup> *Fitness and Amateur Sport*, op. cit., p. 22.

<sup>2</sup> No breakdown given for the 20-24 age group.



The percentage of females who achieved the recommended level was smaller than that of males in all age brackets except 20-29. While 51% of females between 15 and 19 and 45% of those between 30 and 39 were at the minimum level in 1981, 41% of women in the 20-29 group attained the recommended level and 42% the minimum level.

## 4.2 Flexibility

Flexibility may be defined as the range of movement in one or more joints. Having good flexibility is beneficial in a number of ways. It enables us to perform everyday actions and engage in recreational activities without difficulty or discomfort. It prevents the stiffness that intense muscular exertion can cause. It also reduces the risk of injuries and muscular aches and pains.

It is particularly important to develop and maintain flexibility in the lower back in order to prevent backache, a problem that plagues many Canadians. In fact, it is the flexibility of this area of the body that the Fitness Test measures, by means of the sit-and-reach test. According to Table 25, females between 15 and 24 were found to be more flexible than males of the same age.

## 4.3 Muscular Endurance

Muscular endurance refers to the ability of a muscle or group of muscles to contract for a long period or repeatedly without tiring. Not only is this endurance essential in order to perform most routine activities, but it also plays a preventive role by increasing stability in the joints.

The results of the muscular endurance tests - sit-ups and push-ups - are given in Table 25. On average, males between 15 and 24 were able to repeat the movement seven more times than females of the same age, which shows that they have greater muscular endurance.

## 4.4 Muscular Strength

Muscular strength is defined as the peak performance of a muscle or muscle group. While not as vital as other components of physical fitness, muscular strength nevertheless provides protection from some types of accidents by deflecting or absorbing the force of the impact.

By means of a dynamometer, the Fitness Test measures grip strength, the force of muscular contraction in the hands when gripping an object. According to the Canada Fitness Survey report, the average result was 90 kg for males and 57 kg for females.<sup>3</sup>

The results obtained by males in the 15-19 and 20-24 groups exceed the male average by 6 and 17 kg respectively. Females between 15 and 24 surpassed the female average by 4 kg.<sup>4</sup>

## 4.5 Height, Weight and Body Fat

Body measurements such as height, weight and body fat percentage are of considerable interest to health professionals. Not only are they a means of assessing the overall fitness of the population, but a serious discrepancy between a person's measurements and normal values may indicate poor eating habits, insufficient exercise or even a metabolic or endocrine disorder.

The average height is 174 cm for adult males and 161 cm for adult females. The averages for the population aged 15 to 24 are identical to within a few tenths of a centimeter (Table 25).

<sup>3</sup> Fitness and Amateur Sport, op. cit., p. 25.

<sup>4</sup> Ibid. p. 27.

Adult males weigh an average of 76 kg and adult females 62 kg.<sup>5</sup> By contrast, males and females between 15 and 19 average 10 and 5 kg less respectively. In the 20-24 group, men weigh 4 kg less than the average and women 6 kg.

Triceps skinfold measurements reveal that females have a higher percentage of body fat than males. The difference in the size of the skinfold is 7 mm for the 15-19 group and 6.4 mm for the 20-24 group.

## B. ILLNESS AND ITS CONSEQUENCES

From the preceding section, we may conclude that the population aged 15 to 24 is in reasonably good physical condition. However, just as exercise alone does not ensure fitness, fitness does not safeguard people from disease and accidents that may endanger their health or even their lives.

To assess the physical health of the 15-24 age group accurately, then, we will have to consider other indicators. However, the only health status information we have concerns disease and death - "no news is good news", as the old saying goes.

In the next few pages, we will examine the prevalence of the major health problems reported by young people; the annual number of activity-loss days; frequency of visits to health professionals; and drug use. We will also look at hospitalization and mortality statistics.

Aside from a few unspecified problems, the major health problems reported by males between 15 and 24 were hay fever, skin disorders, back, limb and joint disorders and dental problems (Table 26). In general, young women reported the same types of problems, except that headaches superseded limb and joint disorders.

Even though the types of disorders reported by young men and women were essentially the same, the frequency of the problems was different. Skin disorders were most common among females, while hay fever took top spot among males. As mentioned above, limb and joint disorders occurred more often in men and headaches more frequently in women.

It is important to note that the problems reported in the Canada Health Survey are very different from the leading causes of hospitalization recorded in 1978.<sup>6</sup>

### 4.6 Disability Days

Short-term disability, a term used in the Canada Health Survey, measures the annual number of days during which a person was unable to engage in his or her normal activities or had to stay in bed for health reasons. Table 27 gives the annual number of disability days, by major activity and sex, for the 15-24 age group.

Concentrating on the 15-19 group, we find an appreciable difference in the number of disability days by activity. The number of disability days for students is about double the number of activity-loss days for workers or young women living at home. For all activities combined, males reported half a disability day more than females (4.5 compared with 4.1).

In the 20-24 group, the number of disability days varies considerably by sex. For all activities combined, women lost an average of 6.4 days, whereas men lost only 2.9. The 3.5 day difference is due to the comparatively high rate of disability days (12 days) among housewives in this age range.

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<sup>5</sup> *Fitness and Amateur Sport*, op. cit. p. 31.

<sup>6</sup> See page 44.

There is some similarity between the latter observation and the one suggested by Table 28. While males and females between 15 and 19 had approximately the same rate of bed-days, women in the 20-24 group were confined to bed almost twice as long as men in the same group (5.1 days, compared with 2.8).

#### 4.7 Consultations with Health Professionals

Table 29 presents a breakdown of the population aged 15-44 according to whether they visited a health professional<sup>7</sup> in the two weeks preceding the Canada Health Survey and by the reason for the visit.

The proportion of males who consulted a health professional was just about the same in all age groups (16% on average). Only one male in 20 had no symptoms and was probably having a routine check-up, whereas 10% of the male population had a health problem.

The average proportion of females in the various age groups who visited a health professional was 28%. However, consultations were much less frequent among females between 15 and 19 than among their elders.

Extending the observation period to the 12 months preceding the Canada Health Survey, we find that about 60% of males and 70% of females between 15 and 19 visited a physician at least once (Table 30). Regardless of sex, 40% of people in this age group made only one or two visits. However, 5% of females and 3% of males had more than six consultations.

The percentage of people who consult a physician and the frequency of their consultations appear to increase with age. The proportion of people in the 20-24 group who had not seen a physician in the 12 months preceding the survey was only 32% for males and 12% for females. Furthermore, the proportion of females who made 10 or more visits was 7% in the 15-19 group and 11% in the 20-24 group.

Because dental problems afflict so many young people, it is worth examining the data on visits to the dentist. In 1978-1979, 57% of males and 65% of females in the 15-19 age group went to the dentist at least once (Table 31). The percentage of people who visit their dentist declines with age, and the percentage of those who see the dentist frequently is higher among women.

#### 4.8 Drug Use

Table 32 shows that almost 30% of males between 15 and 24 take drugs of some type. Vitamins, skin ointments, pain relievers and cold remedies seem to be the most popular types.

The proportion of young women who use drugs is 39% in the 15-19 group and 50% in the 20-24 group. Women take essentially the same types of drugs as men. However, 10% of them use "other" types of drugs.

#### 4.9 Hospitalization

##### 4.9.1 Males

Tables 33 and 34 list the leading causes of hospitalization for males in the 15-24 group between 1971 and 1978. For the 15-19 group, they were accidents, poisonings and violence; diseases of the digestive system;<sup>8</sup> diseases of the respiratory system;<sup>9</sup> diseases of the

<sup>7</sup> The term "health professional" includes physicians, dentists, optometrists or opticians, nurses, pharmacists, chiropractors, psychologists, social workers and counsellors.

<sup>8</sup> Diseases of the digestive system include appendicitis, diseases of the teeth and non-infectious enteritis, etc.

<sup>9</sup> The major respiratory diseases are deviation of the nasal septum, chronic disease of the tonsils and asthma.



musculoskeletal system and connective tissue;<sup>10</sup> and mental disorders.<sup>11</sup> These health problems, as well as genitourinary diseases in 1971 and 1975, also accounted for the majority of hospitalizations in the 20-24 group.

Between 1971 and 1975, the hospitalization rate for accidents, poisonings and violence increased by 6% and 0.4% for males in the 15-19 and 20-24 age groups respectively, but then declined by 9% for the former and 6% for the latter between 1975 and 1978.

In the 15-19 group, the rate of hospitalization for respiratory and digestive diseases gradually declined between 1971 and 1978. In addition, the average length of stay decreased for both age groups.

In the 15-19 group, the rate of hospitalization for diseases of the musculoskeletal system and connective tissue jumped 15% between 1971 and 1975 and then fell 5%. The average length of stay dropped from nine days in 1971 to 6.7 days in 1978.

For the 20-24 group, diseases of the musculoskeletal system and connective tissue did not show up in the top five causes of hospitalization until 1978, when they displaced genitourinary diseases. The hospitalization rate for the latter was fairly stable between 1971 and 1975.

#### 4.9.2 Females

For the female population between 15 and 24, the leading causes of hospitalization were complications of pregnancy, childbirth and the puerperium, diseases of the respiratory system, diseases of the digestive system, accidents, poisonings and violence, and diseases of the genitourinary system (Tables 35 and 36).

For all causes, the hospitalization rate and the average length of stay for the 15-19 group declined gradually between 1971 and 1978. Their rate of hospitalization for complications of pregnancy, childbirth and the puerperium dropped 20%, and their average length of stay decreased from 5.3 to 4.5 days.

Hospitalizations associated with pregnancy, childbirth and genitourinary diseases are, of course, more common in the 20-24 group than in the 15-19 group, but proportionately they have declined since 1971. Such, unfortunately, is not the case for hospitalizations due to accidents, poisonings and violence. In the 20-24 group, the corresponding hospitalization rate increased by 26% between 1971 and 1975, although it fell 10% in 1978.

#### 4.9.3 By Province

Tables 37 and 38 provide an overview of the major causes of hospitalization for males between 15 and 24 in each province in 1978. In all provinces, accidents, poisonings and violence were the leading cause. For the 15-19 group, the hospitalization rate per 100,000 population ranged from 1,269 in Quebec and 4,406 in Saskatchewan. For the 20-24 group, Quebec again posted the lowest rate (1,291) and British Columbia the highest (4,085).

In the 15-19 group, Ontarians had the highest rate of hospitalization for mental disorders, and Newfoundlanders the highest rate for diseases of the nervous system and sense organs. Albertans suffered the most from diseases of the musculoskeletal system and connective tissue, while residents of Prince Edward Island were most susceptible to diseases of the digestive and respiratory systems.

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<sup>10</sup> Diseases of the musculoskeletal system include arthropathy, rheumatism and skin infections.

<sup>11</sup> See page 48.

In the 20-24 group, Ontarians again registered the highest rate of hospitalization for mental disorders. People living in Prince Edward Island suffered the most from both diseases of the nervous system and sense organs and diseases of the digestive system.

Among males between 20 and 24, Saskatchewan had the highest rate of hospitalization for diseases of the respiratory system and Alberta the highest rate for diseases of the musculoskeletal system and connective tissue. Newfoundland headed the list with regard to genitourinary diseases.

Tables 39 and 40 give a provincial breakdown of the leading causes of hospitalization among females aged 15-24. For both the 15-19 and 20-24 age groups, Saskatchewan had the highest rates of hospitalization for mental disorders, complications of pregnancy, childbirth and the puerperium, and accidents, poisonings and violence. Prince Edward Island had the highest hospitalization rates for respiratory and digestive diseases. The highest rate for genitourinary diseases was recorded in Saskatchewan for the 15-19 group and in Newfoundland for the 20-24 group.

#### 4.10 Surgery

The major types of surgical operations for which males between 15 and 24 were hospitalized were essentially the same in 1971, 1975 and 1978 - orthopedic, ear/nose/throat, abdominal, plastic and dental surgery (Tables 41 and 42). Since 1971, the hospitalization rate has declined for all these types of operations except orthopedic surgery.

The major types of surgical operations performed in hospital on women between 15 and 24 were obstetric, ear/nose/throat, orthopedic, gynecological and abdominal surgery (Tables 43 and 44).

In the 15-19 group, the rate of hospitalization for obstetric, orthopedic and gynecological operations increased between 1971 and 1975, and then declined. The rate for abdominal and ear/nose/throat surgery also decreased gradually between 1971 and 1978.

For women between 20 and 24, the rate of hospitalization for obstetric operations fell between 1971 and 1975, and then began rising. There was a particularly sharp increase in gynecological surgery between 1975 and 1978. Hospitalization for other surgical operations declined gradually between 1971 and 1978.

Table 45 and subsequent tables show that the major types of surgical operations performed on young people in hospital are the same at the provincial level as at the national level.

Among the male population, Alberta had the highest rate of hospitalization for orthopedic and plastic surgery. With regard to abdominal surgery, the highest rate was recorded in Alberta for the 15-19 group and in Prince Edward Island for the 20-24 group. Nova Scotia ranked first in ear/nose/throat operations and Prince Edward Island in dental surgery. Alberta led in diagnostic radiology, and the highest rate for urological surgery was observed in Quebec for the 15-19 group and in Alberta for the 20-24 group.

Turning to the female population, we find that Alberta had the highest rate of hospitalization for gynecological and orthopedic surgery. Prince Edward Island and Newfoundland took first place in abdominal surgery and obstetric operations respectively. The highest rate of ear/nose/throat operations was observed in Nova Scotia.

## 4.11 Public Hospital Operating Expenditures

Table 49 compares the 1976 and 1981 distributions of the operating expenditures<sup>12</sup> of public general hospitals by sex, showing five chapters of the International Classification of Diseases, for the population aged 15 to 24.

For males, the highest expenditures were in the accidents, poisonings and violence category in 1981. The largest increase in expenditures since 1976 was recorded in the mental disorders category (up 92%).

Among females, expenditures for treatment of mental disorders rose by 69% since 1976, again the largest increase.

In 1981, the highest operating costs for women were associated with pregnancy, childbirth and the puerperium.

## 4.12 Mortality

We will now examine the most tragic outcome of illness and accidents. Table 50 and subsequent tables list the leading causes of death in 1961 and 1981 for the population aged 15-24.

Over the 20-year period, there was a marked increase in the number of males between 15 and 19 who committed suicide or were killed in motor vehicle traffic accidents. The traffic accident death rate rose 62% and the suicide rate more than quadrupled. On the other hand, the death rate from cancer and diseases of the circulatory system dropped by about 40%.

The suicide rate among males aged 20-24 almost tripled, while the death rate from cancer and diseases of the circulatory system fell by 31%. The proportion of the male population aged 20-24 killed in traffic accidents was the same in 1961 and 1981. In 1981, homicide superseded influenza, bronchitis and pneumonia as a leading cause of death.

Among females aged 15-19, the death rate from traffic accidents climbed 36% over the last two decades, while the cancer death rate decreased by 38%. Congenital anomalies were responsible for the same proportion of deaths in 1961 and 1981. Diseases of the circulatory system and influenza, bronchitis and pneumonia are no longer among the leading causes of death for this group, having been displaced by suicide and homicide.

For women in the 20-24 group, the traffic accident death rate jumped 42% between 1961 and 1981. The death rates from cancer and diseases of the circulatory system declined by 29% and 67% respectively. Maternal mortality and congenital anomalies no longer endanger as many lives as in 1961, it seems. As in the case of females aged 15-19 and males in both age groups, suicide and homicide have entered the list of the leading causes of death among women in the 20-24 group.

### 4.12.1 Death Due to Motor Vehicle Traffic Accidents

Traffic accidents merit a more detailed discussion since they are the leading cause of death among young people. Consider Table 54. It shows that between 1961 and 1981, the traffic accident death rate rose by 62% in the population aged 15-19 (both sexes), and that the percentage increase was almost twice as large among males as among females. The reverse was true in the population aged 20-24, as the female death rate climbed 42% while the male rate remained stable. Between 1971 and 1981, however, the traffic accident death rate fell by 19% in the 20-24 group.

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<sup>12</sup> Included in these operating costs are wages and expenditures for drugs and medical and surgical supplies used to treat patients.



Table 55 shows that in British Columbia, the traffic accident death rate for the population aged 15-24 was 60% higher than the national average. For females in this group, the death rate was twice the national rate.

Considering the two age groups separately, we find that for the 15-19 group, the death rate in British Columbia was 70% above the national rate. Alberta ranked a fairly distant second. For the 20-24 group, the leader was New Brunswick, with a rate 52% above the national average, followed closely by British Columbia.

## C. MENTAL HEALTH

Health status is not exclusively determined by physical health; mental health must also be considered. Accordingly, we shall measure the affect balance of Canadian youth, look at the incidence of mental disorders and explore the problem of suicide among young people.

### 4.13 Affect Balance

The Canada Health Survey provides a useful overview of the psychological well-being of Canadians, as measured by Bradburn's Affect Balance Scale.

Table 56 reveals that similar percentages of males and females between 15 and 24 - 44% on average - have a positive affect balance, while 48% have mixed feelings. Negative feelings predominate in 4% of young males and 6% of young females.

### 4.14 Mental Disorders

For males between 15 and 24, the leading causes of admission to mental institutions are neurosis, schizophrenia and personality disorders. Other leading causes are transient situational disorders and behavioural disorders in the 15-19 group and alcoholism and affective psychosis in the 20-24 group (Table 57). The same problems - neurosis, schizophrenia, personality disorders and transient situational disorders - are also responsible for the hospitalization of young women. The other leading cause is behavioural disorders in the younger group and affective psychosis in the older group (Table 58). These same diagnoses also account for a majority of the mental institution admissions in the population aged 25-64 (Table 59).

The data on first admissions to mental institutions indicate that the older the population, the greater the chance of hospitalization for mental illness is (Table 60). In 1978, the hospitalization rate was 273 per 100,000 population in the 15-19 group and 333 per 100,000 in the 20-24 group. In the population aged 25-64, the rate was 426 per 100,000. The first admission rate for males aged 15-19 was 9% higher than the rate for females of the same age. The rate for men between 20 and 24 exceeded the rate for the corresponding female population by 22%.

Mental problems are treated in both mental institutions and general hospitals. Four of the five leading disorders for which young males are treated in general hospitals were common to the two age groups - neurosis, schizophrenia, alcoholism and personality disorders. The other disorders were affective psychosis in the 20-24 group, and transient situational disorders in the 15-19 group (Table 61). Among young women, the leading mental problems treated in general hospitals were neurosis, transient situational disorders, personality disorders and schizophrenia (Table 62).

Madeleine Levasseur, in a study entitled *Des problèmes prioritaires*, presents an interesting analysis of mental illness in young people. She asserts that adolescence, a critical phase in the maturing process, is conducive to the development of behavioural and

personality disorders.<sup>13</sup> She also cites statements by Saucier and Steinberg to the effect that an adolescent may experience difficulties, even anxiety and distress, when he has to affirm his identity and become independent. This process involves redefining himself, adjusting his responsibilities and adapting to a wider, more complex set of interpersonal relationships.<sup>14</sup> According to Schonfeld, an adolescent may also have trouble defining his own system of values in a constantly changing society.

At the end of her analysis, Levasseur mentions another significant factor - the increasingly high level of knowledge required to enter the adult world. Paradoxically, the biological maturation period is shrinking because of the higher standard of living. As a result, the adolescent, though physically and often even psychologically mature, remains in a state of socio-economic dependence. The psychological and social tensions generated by such a situation may have an impact on the behaviour or mental health of young people.<sup>15</sup>

#### 4.15 Suicide

As we have seen, suicide is one of the leading causes of death among young people. It has become so prevalent that it merits discussion at greater length.

Between 1961 and 1981, the suicide rate more than quadrupled among males aged 15-19 and almost tripled among males in the 20-24 group. Over the same period, the rate for females in the 15-19 group jumped from 0.8 to 3.8 per 100,000 population. For women in the 20-24 group, it rose from 2.5 in 1961 to 5.9 in 1981 (Table 63).

In 1981, Saskatchewan had the highest suicide rate for both age groups.

While males have a higher suicide rate than females, the latter make more suicide attempts (Table 64). This fact, though, is not unique to young people, as it was observed among the population over 25.<sup>16</sup> Of the five provinces considered, British Columbia posted the highest rate of hospitalization for attempted suicide.

In both age groups, firearms were the most common means of suicide among males. The same was true for females between 15 and 19, while women aged 20-24 most frequently used drugs, medicaments or biological substances (Table 65). In a recent study on suicide in Quebec Marie-France Charron suggests that the tendency of females to use medications in suicide attempts may be related to their use of the health care system. She suggests that, at the onset of depression that often precedes a suicide attempt, females are more likely than males to consult a physician and thus obtain prescriptions for medications, that are subsequently at hand in moments of crisis.<sup>17</sup>

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<sup>13</sup> Madeleine Levasseur, **Des problèmes prioritaires**, collection: La santé des Québécois, Conseil des affaires sociales et de famille, Québec City, 1983, p. 50.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> Lapierre, *op. cit.* p. 48.

<sup>17</sup> Marie-France Charron, **Le suicide au Québec**, analyse statistique, Annexe I de l'Avis sur la prévention du suicide du Comité de la santé mentale du Québec, Ministère des Affaires sociales, Québec, 1981, p. 96.

**TABLE 24. Distribution of the Population Aged 15 to 39, by Aerobic Capacity (Step Test), Age and Sex, Canada, 1981**

		Recommended level	Minimum level	Undesirable level	Screened out	Refused	Total
in thousands							
15-19 years:							
Male	No.	663	412	16	63	24	1,178
	%	56.3	35.0	1.4	5.3	2.0	100.0
Female	No.	360	571	62	101	36	1,129
	%	31.9	50.6	5.5	8.9	3.2	100.0
20-29 years:							
Male	No.	789	1,132	95	175	59	2,251
	%	35.1	50.3	4.2	7.8	2.6	100.0
Female	No.	921	943	71	254	66	2,254
	%	40.9	41.8	3.1	11.3	2.9	100.0
30-39 years:							
Male	No.	981	595	39	153	69	1,837
	%	53.4	32.4	2.1	8.3	3.8	100.0
Female	No.	559	819	111	266	64	1,820
	%	30.7	45.0	6.1	14.6	3.5	100.0

Source: Fitness and Amateur Sport, *Fitness and Lifestyle in Canada*, Canada Fitness Survey 1981, Ottawa, 1983, p. 44.

**TABLE 25. Principal Findings of the Test of Fitness, by Age of Participants, Canada, 1981<sup>1</sup>**

		15-19 years		20-24 years	
		Male	Female	Male	Female
Flexibility:					
Sit-and-reach	cm	30	34	31	33
Muscular endurance:					
Sit-ups	No.	39	32	35	28
Push-ups	No.	26	21	26	19
Muscular strength:					
Grip strength	kg	96	60	107	61
Height	cm	173.9	161.9	174.6	162.2
Body weight	kg	66.5	56.8	72.3	56.1
Triceps skin fold:					
Thickness	mm	9.2	16.2	9.3	15.7

<sup>1</sup> These data are averages for each age group and sex.

Source: Canada Fitness Survey 1981, unpublished data.



**TABLE 26. Principal Health Problems Reported by the Population Aged 15 to 24, by Sex, Canada, 1978-1979<sup>1</sup>**

Type of problem	Male		Female	
	Number of problems (in thousands)	Percentage	Number of problems (in thousands)	Percentage
Hay fever	260	18.4	260	13.0
Skin disorders	202	14.3	333	16.7
Limb and joint disorders	137	9.7	130	6.5
Unspecified problems	131	9.3	242	12.1
Dental problems	130	9.2	194	9.7
Headaches	45	3.2	132	6.6
Sub-total	905	64.0	1,291	64.7
Residual total <sup>2</sup>	509	36.0	703	35.3
Total number of problems reported	1,414	100.0	1,994	100.0

<sup>1</sup> The total number of times that a particular problem was reported and not the number of persons afflicted.

<sup>2</sup> Includes all other problems reported but not mentioned above.

Source: Canada Health Survey, unpublished data.

**TABLE 27. Distribution of Annual Number of Disability Days, by Age, Sex and Activity, Canada, 1978-1979**

Major activity	15-19 years			20-24 years		
	Population	Total number of days lost	Days lost per person	Population	Total number of days lost	Days lost per person
in thousands						
<b>All activities:</b>						
<b>Male</b>	<b>917</b>	<b>4,158</b>	<b>4.54</b>	<b>912</b>	<b>2,621</b>	<b>2.87</b>
<b>Female</b>	<b>897</b>	<b>3,638</b>	<b>4.06</b>	<b>1,022</b>	<b>6,537</b>	<b>6.40</b>
<b>School:</b>						
Male	594	3,347	5.63	158	240	1.52
Female	548	2,697	4.92	106	407	3.84
<b>Work:</b>						
Male	322	811	2.52	753	2,380	3.16
Female	282	754	2.67	643	2,859	4.45
<b>Housework:</b>						
Male	--	--	--	--	--	--
Female	66	188	2.83	273	3,271	11.98

Source: Canada Health Survey, unpublished data.

**TABLE 28. Distribution of Annual Number of Bed-days, by Age and Sex, Canada, 1978-1979**

	Population	Total number of bed-days	Bed-days per person
	in thousands		
15-19 years:			
Male	1,187	3,610	3.04
Female	1,146	4,168	3.64
20-24 years:			
Male	1,106	3,143	2.84
Female	1,108	5,698	5.14
Total:			
Male	2,294	6,752	2.94
Female	2,254	9,866	4.38

Source: Canada Health Survey, unpublished data.

**TABLE 29. Distribution of the Population Aged 15 to 44 by Consultation with a Health Professional in the Last Two Weeks Preceding the Survey, Age and Sex, Canada, 1978-1979**

		Total	No consultation	Consultation without problem	Consultation with a problem
		in thousands			
15-19 years:					
Male	No.	1,187	1,015	53	120
	%	100.0	85.5	4.4	10.1
Female	No.	1,146	906	82	158
	%	100.0	79.1	7.1	13.8
20-24 years:					
Male	No.	1,106	911	58	137
	%	100.0	82.4	5.2	12.4
Female	No.	1,108	775	133	200
	%	100.0	70.0	12.0	18.0
25-44 years:					
Male	No.	3,230	2,728	162	340
	%	100.0	84.4	5.0	10.5
Female	No.	3,242	2,324	348	570
	%	100.0	71.7	10.7	17.6

Source: Health and Welfare Canada and Statistics Canada, *The Health of Canadians: Report of the Canada Health Survey*, Catalogue 82-538E, Ottawa, 1981, p. 173.

**TABLE 30. Distribution of the Population Aged 15 to 44 by Number of Consultations with a Medical Doctor in the Previous 12 Months, Age and Sex, Canada, 1978-1979**

		Total	No consultation	1-2 consultations	3-9 consultations	10 or more consultations	Unknown
in thousands							
15-19 years:							
Male	No.	1,187	481	475	176	52	--
	%	100.0	40.5	40.0	14.8	4.3	--
Female	No.	1,146	330	463	262	80	--
	%	100.0	28.8	40.4	22.9	7.0	--
20-24 years:							
Male	No.	1,106	352	475	226	38	14
	%	100.0	31.9	43.0	20.4	3.4	1.3
Female	No.	1,108	128	466	377	125	--
	%	100.0	11.6	42.1	34.0	11.3	--
25-44 years:							
Male	No.	3,230	1,047	1,445	569	137	32
	%	100.0	32.4	44.7	17.6	4.2	1.0
Female	No.	3,242	450	1,367	944	463	18
	%	100.0	13.9	42.2	29.1	14.3	.5

Source: Health and Welfare Canada and Statistics Canada, *The Health of Canadians: Report of the Canada Health Survey*, Catalogue 82-538E, Ottawa, 1981, p. 169.

**TABLE 31. Distribution of the Population Aged 15 to 44 by Number of Consultations with a Dentist in the Previous 12 Months, Age and Sex, Canada, 1978-1979**

		Total	No consultation	1-2 consultations	3-5 consultations	6 or more consultations	Unknown
in thousands							
15-19 years:							
Male	No.	1,187	502	535	111	35	5
	%	100.0	42.2	45.1	9.3	2.9	.4
Female	No.	1,146	386	544	151	53	--
	%	100.0	33.7	47.5	13.2	4.6	--
20-24 years:							
Male	No.	1,106	560	426	74	27	19
	%	100.0	50.6	38.5	6.7	2.5	1.7
Female	No.	1,108	465	475	119	40	--
	%	100.0	41.9	42.9	10.7	3.6	--
25-44 years:							
Male	No.	3,230	1,624	1,228	262	95	21
	%	100.0	50.3	38.0	8.1	3.0	.6
Female	No.	3,242	1,418	1,396	310	108	--
	%	100.0	43.7	43.1	9.6	3.3	--

Source: Health and Welfare Canada and Statistics Canada, *The Health of Canadians: Report of the Canada Health Survey*, Catalogue 82-538E, Ottawa, 1981, p. 171.



**TABLE 32. Distribution of the Population Aged 15 to 44 by Class of Drug Use, Age and Sex, Canada, 1978-1979**

		Class of drug use					
		Total	Pain reliever	Tranqui- lizers or sleeping pills	Heart/ Blood pressure medicine	Anti- biotic	Stomach medicine
in thousands							
15-19 years:							
Male	No.	1,187	76	--	--	31	--
	%	100.0	6.4	--	--	2.6	--
Female	No.	1,146	127	--	--	35	13
	%	100.0	11.1	--	--	3.0	1.1
20-24 years:							
Male	No.	1,106	94	--	--	23	24
	%	100.0	8.5	--	--	2.1	2.1
Female	No.	1,108	162	25	--	39	27
	%	100.0	14.6	2.3	--	3.5	2.5
25-44 years:							
Male	No.	3,230	362	77	45	56	129
	%	100.0	11.2	2.4	1.4	1.7	4.0
Female	No.	3,242	640	168	56	111	115
	%	100.0	19.8	5.2	1.7	3.4	3.6
		Class of drug use					
		Laxative	Cold remedy	Skin ointment	Vitamins	Other drugs	Total drug use
in thousands							
15-19 years:							
Male	No.	--	48	84	161	29	340
	%	--	4.0	7.1	13.6	2.5	28.6
Female	No.	--	55	102	228	47	450
	%	--	4.8	8.9	19.9	4.1	39.3
20-24 years:							
Male	No.	--	42	43	158	30	317
	%	--	3.8	3.9	14.3	2.7	28.6
Female	No.	16	66	97	292	106	558
	%	1.4	6.0	8.8	26.3	9.6	50.3
25-44 years:							
Male	No.	26	143	116	458	84	1,099
	%	.8	4.4	3.6	14.2	2.6	34.0
Female	No.	92	183	217	814	317	1,733
	%	2.8	5.6	6.7	25.1	9.8	53.5

Source: Health and Welfare Canada and Statistics Canada, **The Health of Canadians: Report of the Canada Health Survey**, Catalogue 82-538E, Ottawa, 1981, p. 179.

**TABLE 33. The Five Leading Causes of Hospitalization of Men Aged 15 to 19, Canada, 1971, 1975 and 1978**

ICDA-8 Chapters		Rank	Number of cases	Rate per 100,000 population	Average stay
1971:					
XVII.	Accidents, poisonings and violence	1	26,505	2,471.8	7.6
IX.	Diseases of the digestive system	2	11,950	1,114.4	5.5
VIII.	Diseases of the respiratory system	3	11,726	1,093.5	4.7
XIII.	Diseases of the musculoskeletal system and connective tissue	4	4,228	394.3	9.0
V.	Mental disorders	5	3,884	362.2	18.4
1975:					
XVII.	Accidents, poisonings and violence	1	30,679	2,630.5	7.3
IX.	Diseases of the digestive system	2	11,719	1,004.8	4.8
VIII.	Diseases of the respiratory system	3	10,066	863.1	4.0
XIII.	Diseases of the musculoskeletal system and connective tissue	4	5,311	455.4	7.1
V.	Mental disorders	5	3,703	317.5	20.2
1978:					
XVII.	Accidents, poisonings and violence	1	28,790	2,397.4	6.9
IX.	Diseases of the digestive system	2	10,424	868.0	4.8
VIII.	Diseases of the respiratory system	3	9,427	785.0	3.7
XIII.	Diseases of the musculoskeletal system and connective tissue	4	5,219	434.6	6.7
V.	Mental disorders	5	4,064	338.4	19.6

Source: Statistics Canada, Health Division, Institutional Care Section, unpublished data.

**TABLE 34. The Five Leading Causes of Hospitalization of Men Aged 20 to 24, Canada, 1971, 1975 and 1978**

ICDA-8 Chapters		Rank	Number of cases	Rate per 100,000 population	Average stay
1971:					
XVII.	Accidents, poisonings and violence	1	23,332	2,484.2	8.7
IX.	Diseases of the digestive system	2	13,243	1,410.0	6.0
VIII.	Diseases of the respiratory system	3	9,909	1,055.1	4.5
X.	Diseases of the genitourinary system	4	5,258	559.8	5.7
V.	Mental disorders	5	5,045	537.2	17.4
1975:					
XVII.	Accidents, poisonings and violence	1	25,858	2,495.5	8.3
IX.	Diseases of the digestive system	2	13,001	1,254.7	5.1
VIII.	Diseases of the respiratory system	3	9,196	887.5	3.9
V.	Mental disorders	4	6,099	588.6	17.7
X.	Diseases of the genitourinary system	5	5,755	555.4	4.5
1978:					
XVII.	Accidents, poisonings and violence	1	26,170	2,338.9	7.3
IX.	Diseases of the digestive system	2	11,545	1,031.8	5.1
VIII.	Diseases of the respiratory system	3	8,671	775.0	3.7
V.	Mental disorders	4	6,835	610.9	17.1
XIII.	Diseases of the musculoskeletal system and connective tissue	5	6,511	581.9	6.2

Source: Statistics Canada, Health Division, Institutional Care Section, unpublished data.



**TABLE 35. The Five Leading Causes of Hospitalization of Women Aged 15 to 19, Canada, 1971, 1975 and 1978**

ICDA-8 Chapters		Rank	Number of cases	Rate per 100,000 population	Average stay
1971:					
XI.	Complications of pregnancy, childbirth and the puerperium	1	65,825	6,343.4	5.3
VIII.	Diseases of the respiratory system	2	17,378	1,674.7	4.1
IX.	Diseases of the digestive system	3	15,702	1,513.2	5.7
XVII.	Accidents, poisonings and violence	4	12,784	1,232.0	7.1
X.	Diseases of the genitourinary system	5	12,589	1,213.2	5.0
1975:					
XI.	Complications of pregnancy, childbirth and the puerperium	1	68,060	6,052.5	4.7
IX.	Diseases of the digestive system	2	14,893	1,324.4	4.9
VIII.	Diseases of the respiratory system	3	14,722	1,309.2	3.5
XVII.	Accidents, poisonings and violence	4	13,495	1,200.1	6.3
X.	Diseases of the genitourinary system	5	12,957	1,152.3	4.4
1978:					
XI.	Complications of pregnancy, childbirth and the puerperium	1	58,937	5,084.3	4.5
VIII.	Diseases of the respiratory system	2	13,748	1,186.0	3.3
XVII.	Accidents, poisonings and violence	3	12,641	1,090.5	6.0
IX.	Diseases of the digestive system	4	12,522	1,080.2	4.8
X.	Diseases of the genitourinary system	5	11,136	960.7	4.4

**Source:** Statistics Canada, Health Division, Institutional Care Section, unpublished data.

**TABLE 36. The Five Leading Causes of Hospitalization of Women Aged 20 to 24, Canada, 1971, 1975 and 1978**

ICDA-8 Chapters		Rank	Number of cases	Rate per 100,000 population	Average stay
1971:					
XI.	Complications of pregnancy, childbirth and the puerperium	1	177,449	18,777.7	5.5
X.	Diseases of the genitourinary system	2	23,608	2,498.2	4.9
IX.	Diseases of the digestive system	3	19,722	2,087.0	7.1
VIII.	Diseases of the respiratory system	4	11,462	1,212.9	4.5
XVII.	Accidents, poisonings and violence	5	7,819	827.4	15.9
1975:					
XI.	Complications of pregnancy, childbirth and the puerperium	1	168,741	16,289.3	5.1
X.	Diseases of the genitourinary system	2	21,980	2,121.8	4.4
IX.	Diseases of the digestive system	3	18,424	1,778.6	5.9
XVII.	Accidents, poisonings and violence	4	10,803	1,042.9	6.8
VIII.	Diseases of the respiratory system	5	10,061	971.2	4.0
1978:					
XI.	Complications of pregnancy, childbirth and the puerperium	1	161,570	14,486.7	4.9
X.	Diseases of the genitourinary system	2	19,782	1,773.7	4.4
IX.	Diseases of the digestive system	3	15,061	1,350.4	5.7
XVII.	Accidents, poisonings and violence	4	10,493	940.8	6.2
VIII.	Diseases of the respiratory system	5	9,314	835.1	3.7

Source: Statistics Canada, Health Division, Institutional Care Section, unpublished data.

**TABLE 37. Major Causes of Hospitalization of Men Aged 15 to 19, for the 10 Canadian Provinces, 1978**

Province	Major chapters						
	V. Mental disorders	VI. Diseases of the nervous system and sense organs	VIII. Diseases of the respira- tory system	IX. Diseases of the digestive system	XIII. Diseases of the musculo- skeletal system and con- nective tissue	XVI. Symptoms and ill- defined condi- tions	XVII. Accidents, poisonings and violence
Newfoundland:							
Rank	10	5	3	2	7	4	1
Number	85	122	244	272	97	134	687
Rate per 100,000 population	273.3	392.3	784.6	874.6	311.9	430.9	2,209.0
Average stay	10.3	6.8	4.3	5.4	9.4	4.0	8.0
Prince Edward Island:							
Rank	13	8	2	3	5	4	1
Number	8	19	93	83	25	57	216
Rate per 100,000 population	121.2	287.9	1,409.1	1,257.6	378.8	863.6	3,272.7
Average stay	4.1	3.8	3.9	5.4	5.8	2.8	5.3
Nova Scotia:							
Rank	10	7	2	3	5	4	1
Number	94	112	440	345	162	177	1,153
Rate per 100,000 population	212.2	252.8	993.2	778.8	365.7	399.6	2,602.7
Average stay	8.3	8.7	4.4	6.0	9.6	4.0	8.9
New Brunswick:							
Rank	7	6	2	3	5	4	1
Number	120	128	350	322	128	176	1,022
Rate per 100,000 population	322.6	344.1	940.9	865.6	344.1	473.1	2,747.3
Average stay	13.8	7.2	4.5	5.8	7.4	5.7	8.4
Quebec:							
Rank	8	5	3	2	4	9	1
Number	620	882	2,160	2,701	1,070	475	4,219
Rate per 100,000 population	186.4	265.2	649.4	812.1	321.7	142.8	1,268.5
Average stay	29.1	10.4	3.6	4.2	6.9	5.8	9.1



**TABLE 37. Major Causes of Hospitalization of Men Aged 15 to 19, for the 10 Canadian Provinces, 1978 – Concluded**

Province	Major chapters						
	V. Mental disorders	VI. Diseases of the nervous system and sense organs	VIII. Diseases of the respira- tory system	IX. Diseases of the digestive system	XIII. Diseases of the musculo- skeletal system and con- nective tissue	XVI. Symptoms and ill- defined condi- tions	XVII. Accidents, poisonings and violence
Ontario:							
Rank	5	7	3	2	4	6	1
Number	1,843	1,082	3,155	3,754	2,189	1,603	9,337
Rate per 100,000 population	440.2	258.4	753.5	896.6	522.8	382.9	2,230.0
Average stay	16.7	7.4	3.7	4.8	5.8	3.9	6.5
Manitoba:							
Rank	6	8	2	3	4	5	1
Number	159	103	520	444	234	218	1,249
Rate per 100,000 population	312.4	202.4	1,021.6	872.3	459.7	428.3	2,453.8
Average stay	22.7	7.4	3.2	4.8	6.9	2.9	7.9
Saskatchewan:							
Rank	7	8	2	3	5	4	1
Number	208	186	585	508	247	263	2,172
Rate per 100,000 population	421.9	377.3	1,186.6	1,030.4	501.0	533.5	4,405.7
Average stay	10.3	7.4	3.6	5.1	4.8	3.0	4.6
Alberta:							
Rank	5	10	3	2	4	6	1
Number	429	263	1,004	1,052	686	376	4,026
Rate per 100,000 population	399.8	245.1	935.7	980.4	639.3	350.4	3,752.1
Average stay	15.9	19.0	3.7	4.5	8.4	3.3	6.1
British Columbia:							
Rank	4	9	3	2	5	7	1
Number	498	288	876	943	381	337	4,709
Rate per 100,000 population	405.2	234.3	712.8	767.3	310.0	274.2	3,831.6
Average stay	30.0	12.5	3.6	5.3	7.0	3.2	6.1

Source: Health Division, Institutional Care Section, unpublished data.

**TABLE 38. Major Causes of Hospitalization of Men Aged 20 to 24, for the 10 Canadian Provinces, 1978**

Province	Major chapters							
	V. Mental disorders	VI. Diseases of the nervous system and sense organs	VIII. Diseases of the respira- tory system	IX. Diseases of the digestive system	XIII. Diseases of the musculo- skeletal system and con- nective tissue	XVI. Symptoms and ill- defined condi- tions	XVII. Accidents, poisonings and violence	X. Diseases of the genito- urinary system
Newfoundland:								
Rank	4	10	3	2	7	6	1	5
Number	152	69	189	294	111	123	553	127
Rate per 100,000 population	578.0	262.4	718.6	1,117.9	422.1	467.7	2,102.7	482.9
Average stay	10.5	8.0	4.9	6.0	6.7	3.6	7.0	6.2
Prince Edward Island:								
Rank	5	7	3	2	6	4	1	11
Number	25	21	50	90	24	42	159	12
Rate per 100,000 population	471.7	396.2	943.4	1,698.1	452.8	792.5	3,000.0	226.4
Average stay	2.6	5.9	4.0	4.9	5.3	3.0	5.2	3.1
Nova Scotia:								
Rank	9	7	3	2	4	5	1	8
Number	106	122	352	397	186	150	961	109
Rate per 100,000 population	267.0	307.3	886.7	1,000.0	468.5	377.8	2,420.7	274.6
Average stay	7.7	8.6	4.1	6.5	7.4	4.2	9.0	6.1
New Brunswick:								
Rank	5	8	3	2	4	7	1	6
Number	166	120	269	371	184	138	906	149
Rate per 100,000 population	494.1	357.1	800.6	1,104.2	547.6	410.7	2,696.4	443.5
Average stay	11.0	8.1	4.2	5.8	6.2	6.5	8.5	5.4
Quebec:								
Rank	5	8	3	2	4	11	1	6
Number	1,468	820	2,347	2,908	1,585	480	4,040	1,002
Rate per 100,000 population	469.0	262.0	749.8	929.1	506.4	153.4	1,290.7	320.1
Average stay	24.5	18.3	3.6	5.0	7.1	7.1	9.1	5.4

**TABLE 38. Major Causes of Hospitalization of Men Aged 20 to 24, for the 10 Canadian Provinces, 1978 – Concluded**

Province	Major chapters							
	V. Mental disorders	VI. Diseases of the nervous system and sense organs	VIII. Diseases of the respira- tory system	IX. Diseases of the digestive system	XIII. Diseases of the musculo- skeletal system and con- nective tissue	XVI. Symptoms and ill- defined condi- tions	XVII. Accidents, poisonings and violence	X. Diseases of the genito- urinary system
Ontario:								
Rank	3	9	4	2	5	6	1	7
Number	2,893	928	2,741	4,207	2,466	1,529	8,209	1,268
Rate per 100,000 population	756.9	242.8	717.2	1,100.7	645.2	400.1	2,147.8	331.8
Average stay	16.0	6.6	3.8	4.8	6.0	4.2	7.2	5.2
Manitoba:								
Rank	5	9	2	3	4	6	1	7
Number	229	123	491	474	256	167	1,109	133
Rate per 100,000 population	477.1	256.3	1,022.9	987.5	533.3	347.9	2,310.4	277.1
Average stay	20.8	5.8	3.2	4.8	6.3	3.5	7.4	5.5
Saskatchewan:								
Rank	5	8	3	2	4	6	1	10
Number	307	173	491	562	339	221	1,742	117
Rate per 100,000 population	685.3	386.2	1,096.0	1,254.5	756.7	493.3	3,888.4	261.2
Average stay	14.2	15.4	3.6	5.0	5.2	2.9	5.5	6.9
Alberta:								
Rank	5	9	3	2	4	6	1	7
Number	633	349	935	1,234	912	391	3,802	372
Rate per 100,000 population	569.2	313.9	840.8	1,109.7	820.1	351.6	3,419.1	334.5
Average stay	14.2	21.6	3.6	5.4	5.7	3.5	6.4	5.3
British Columbia:								
Rank	3	9	4	2	5	7	1	6
Number	856	259	806	1,008	448	330	4,689	379
Rate per 100,000 population	745.6	225.6	702.1	878.1	390.2	287.5	4,084.5	330.1
Average stay	14.1	16.8	3.7	5.4	5.9	3.6	6.7	5.1

Source: Health Division, Institutional Care Section, unpublished data.

**TABLE 39. Major Causes of Hospitalization of Women Aged 15 to 19, for the 10 Canadian Provinces, 1978**

Province	Major chapters						
	V. Mental disorders	VIII. Diseases of the respira- tory system	IX. Diseases of the digestive system	X. Diseases of the genito- urinary system	XI. Complica- tions of pregnancy, childbirth and the puerperium	XVI. Symptoms and ill- defined condi- tions	XVII. Accidents, poisonings and violence
Newfoundland:							
Rank	7	4	6	2	1	5	3
Number	176	374	298	378	2,656	367	377
Rate per 100,000 population	584.7	1,242.5	990.0	1,255.8	8,823.9	1,219.3	1,252.5
Average stay	13.7	4.0	5.9	4.9	6.1	3.3	7.6
Prince Edward Island:							
Rank	7	2	5	6	1	3	4
Number	42	171	100	86	365	112	111
Rate per 100,000 population	656.3	2,671.9	1,562.5	1,343.8	5,703.1	1,750.0	1,734.4
Average stay	4.2	4.2	4.0	4.7	5.1	3.5	4.8
Nova Scotia:							
Rank	8	2	3	4	1	6	5
Number	147	668	460	435	3,099	395	429
Rate per 100,000 population	346.7	1,575.5	1,084.9	1,025.9	7,309.0	931.6	1,011.8
Average stay	12.5	3.7	6.1	4.9	4.9	4.4	6.7
New Brunswick:							
Rank	7	2	4	3	1	6	5
Number	153	484	378	463	2,340	283	320
Rate per 100,000 population	429.8	1,359.6	1,061.8	1,300.6	6,573.0	794.9	898.9
Average stay	12.5	4.4	5.8	5.3	5.5	5.0	5.3
Quebec:							
Rank	10	2	3	4	1	8	5
Number	748	2,995	2,974	1,690	8,235	860	1,523
Rate per 100,000 population	232.2	929.6	923.0	524.5	2,555.9	266.9	472.7
Average stay	24.8	3.0	4.5	5.0	4.4	5.3	8.2



**TABLE 39. Major Causes of Hospitalization of Women Aged 15 to 19, for the 10 Canadian Provinces, 1978 – Concluded**

Province	Major chapters						
	V. Mental disorders	VIII. Diseases of the respira- tory system	IX. Diseases of the digestive system	X. Diseases of the genito- urinary system	XI. Complica- tions of pregnancy, childbirth and the puerperium	XVI. Symptoms and ill- defined condi- tions	XVII. Accidents, poisonings and violence
Ontario:							
Rank	7	2	3	5	1	6	4
Number	2,506	4,555	4,463	3,884	20,451	3,033	4,190
Rate per 100,000 population	621.8	1,130.3	1,107.4	963.8	5,074.7	752.6	1,039.9
Average stay	14.7	3.2	4.7	4.4	4.5	4.2	5.5
Manitoba:							
Rank	8	2	4	5	1	6	3
Number	197	716	576	465	3,369	462	665
Rate per 100,000 population	398.0	1,446.5	1,163.6	939.4	6,806.1	933.3	1,343.4
Average stay	13.7	2.9	4.9	3.8	4.4	3.2	4.8
Saskatchewan:							
Rank	7	3	5	4	1	6	2
Number	323	877	689	830	4,352	471	1,109
Rate per 100,000 population	672.9	1,827.1	1,435.4	1,729.2	9,066.7	981.3	2,310.4
Average stay	10.0	3.4	5.0	3.4	4.6	2.9	4.1
Alberta:							
Rank	8	4	5	3	1	6	2
Number	572	1,546	1,393	1,556	7,850	843	1,726
Rate per 100,000 population	552.7	1,493.7	1,345.9	1,503.4	7,584.5	814.5	1,667.6
Average stay	13.1	3.4	4.7	4.1	4.1	3.1	6.0
British Columbia:							
Rank	7	3	5	4	1	6	2
Number	643	1,362	1,191	1,349	6,220	727	2,191
Rate per 100,000 population	542.6	1,149.4	1,005.1	1,138.4	5,249.0	613.5	1,849.0
Average stay	13.6	3.3	4.7	4.4	4.1	3.2	6.6

Source: Health Division, Institutional Care Section, unpublished data.

**TABLE 40. Major Causes of Hospitalization of Women Aged 20 to 24, for the 10 Canadian Provinces, 1978**

Province	Major chapters							
	V. Mental disorders	VIII. Diseases of the respira- tory system	IX. Diseases of the digestive system	X. Diseases of the genito- urinary system	XI. Complica- tions of pregnancy, childbirth and the puerperium	XVI. Symptoms and ill- defined condi- tions	XVII. Accidents, poisonings and violence	XVIII. Supple- mentary headings
Newfoundland:								
Rank	8	7	5	2	1	4	6	3
Number	217	233	367	725	5,024	391	260	398
Rate per 100,000 population	818.9	879.2	1,384.9	2,735.8	18,958.5	1,475.5	981.1	1,501.9
Average stay	11.0	4.5	6.1	4.3	5.5	3.7	5.7	3.5
Prince Edward Island:								
Rank	9	4	3	2	1	5	6	11
Number	21	84	104	104	801	83	63	15
Rate per 100,000 population	396.2	1,584.9	1,962.3	1,962.3	15,113.2	1,566.0	1,188.7	283.0
Average stay	5.6	5.0	5.3	4.3	5.2	4.7	4.2	2.2
Nova Scotia:								
Rank	7	4	3	2	1	5	6	9
Number	197	408	489	785	6,227	407	362	171
Rate per 100,000 population	509.0	1,054.3	1,263.6	2,028.4	16,090.4	1,051.7	935.4	441.9
Average stay	12.3	4.1	7.2	4.9	5.2	4.6	8.0	3.2
New Brunswick:								
Rank	8	4	3	2	1	5	6	7
Number	186	310	467	700	5,604	301	291	218
Rate per 100,000 population	563.6	939.4	1,415.2	2,121.2	16,981.8	912.1	881.8	660.6
Average stay	13.1	4.3	6.4	5.1	5.7	5.6	6.6	3.1
Quebec:								
Rank	7	4	3	2	1	10	6	5
Number	1,291	2,334	3,430	3,841	36,940	1,157	1,424	1,542
Rate per 100,000 population	414.6	749.5	1,101.5	1,233.5	11,862.6	371.5	457.3	495.2
Average stay	23.2	3.4	6.0	4.8	4.6	4.9	8.6	3.6

**TABLE 40. Major Causes of Hospitalization of Women Aged 20 to 24, for the 10 Canadian Provinces, 1978 – Concluded**

Province	Major chapters							
	V. Mental disorders	VIII. Diseases of the respira- tory system	IX. Diseases of the digestive system	X. Diseases of the genito- urinary system	XI. Complica- tions of pregnancy, childbirth and the puerperium	XVI. Symptoms and ill- defined condi- tions	XVII. Accidents, poisonings and violence	XVIII. Supple- mentary headings
Ontario:								
Rank	4	7	3	2	1	6	5	8
Number	3,442	2,931	5,530	7,134	54,256	3,174	3,404	2,559
Rate per 100,000 population	885.7	754.2	1,423.1	1,835.8	13,961.9	816.8	876.0	658.5
Average stay	16.0	3.8	5.5	4.3	5.0	4.2	6.3	3.4
Manitoba:								
Rank	8	5	2	3	1	6	4	7
Number	244	494	691	666	7,541	435	554	248
Rate per 100,000 population	511.5	1,035.6	1,448.6	1,396.2	15,809.2	911.9	1,161.4	519.9
Average stay	16.5	3.0	5.5	4.2	4.6	3.2	4.9	2.9
Saskatchewan:								
Rank	7	5	4	2	1	6	3	9
Number	384	558	750	1,040	9,702	404	798	239
Rate per 100,000 population	888.9	1,291.7	1,736.1	2,407.4	22,458.3	935.2	1,847.2	553.2
Average stay	14.8	3.6	5.6	3.8	4.8	2.8	4.3	3.8
Alberta:								
Rank	8	6	3	2	1	7	4	5
Number	697	1,090	1,773	2,633	18,160	938	1,453	1,227
Rate per 100,000 population	665.7	1,041.1	1,693.4	2,514.8	17,344.8	895.9	1,387.8	1,171.9
Average stay	12.1	3.7	5.5	3.8	4.7	3.7	5.2	3.5
British Columbia:								
Rank	5	6	4	2	1	7	3	9
Number	908	872	1,460	2,154	17,315	833	1,884	527
Rate per 100,000 population	781.4	750.4	1,256.5	1,853.7	14,901.0	716.9	1,621.3	453.5
Average stay	14.2	3.4	5.9	4.4	4.6	3.4	6.0	3.0

Source: Health Division, Institutional Care Section, unpublished data.

**TABLE 41. The Five Leading Types of Surgical Procedures Performed in Hospitals on Men Between the Ages of 15 and 19, Canada, 1971, 1975 and 1978**

ICDA-8 Chapters		Rank	Number of cases	Rate per 100,000 population	Average stay
1971:					
13.	Orthopedic surgery	1	12,205	1,138.2	9.6
3.	Ear/nose/throat surgery	2	9,332	870.3	3.9
7.	Abdominal surgery	3	6,471	603.5	7.7
14.	Plastic surgery	4	4,656	434.2	6.5
16.	Dental surgery	5	3,306	308.3	1.8
1975:					
13.	Orthopedic surgery	1	15,177	1,301.3	8.7
3.	Ear/nose/throat surgery	2	8,438	723.5	3.6
7.	Abdominal surgery	3	6,901	591.7	7.0
14.	Plastic surgery	4	4,623	396.4	6.0
16.	Dental surgery	5	2,968	254.5	2.1
1978:					
13.	Orthopedic surgery	1	15,174	1,263.5	7.6
3.	Ear/nose/throat surgery	2	7,598	632.7	3.5
7.	Abdominal surgery	3	6,759	562.8	6.5
14.	Plastic surgery	4	4,075	339.3	6.4
9.	Urological surgery	5	2,284	190.2	6.4

**Source:** Statistics Canada, Health Division, Institutional Care Section, unpublished data.



**TABLE 42. The Five Leading Types of Surgical Procedures Performed in Hospitals on Men Between the Ages of 20 and 24, Canada, 1971, 1975 and 1978**

ICDA-8 Chapters		Rank	Number of cases	Rate per 100,000 population	Average stay
1971:					
13.	Orthopedic surgery	1	10,580	1,126.5	10.6
3.	Ear/nose/throat surgery	2	8,414	895.9	4.2
7.	Abdominal surgery	3	6,726	716.1	8.1
14.	Plastic surgery	4	3,799	404.5	7.4
16.	Dental surgery	5	3,219	342.7	1.9
1975:					
13.	Orthopedic surgery	1	13,379	1,291.2	8.6
3.	Ear/nose/throat surgery	2	8,148	786.3	3.6
7.	Abdominal surgery	3	6,562	633.3	7.8
14.	Plastic surgery	4	3,805	367.2	7.4
16.	Dental surgery	5	3,423	330.3	1.8
1978:					
13.	Orthopedic surgery	1	14,836	1,326.0	7.5
3.	Ear/nose/throat surgery	2	7,514	671.6	3.4
7.	Abdominal surgery	3	6,466	577.9	6.8
14.	Plastic surgery	4	3,681	329.0	7.4
9.	Urological surgery	5	2,801	250.3	6.3

Source: Statistics Canada, Health Division, Institutional Care Section, unpublished data.

**TABLE 43. The Five Leading Types of Surgical Procedures Performed in Hospitals on Women Between the Ages of 15 and 19, Canada, 1971, 1975 and 1978**

ICDA-8 Chapters		Rank	Number of cases	Rate per 100,000 population	Average stay
1971:					
12.	Obstetric operations	1	35,843	3,454.1	5.7
3.	Ear/nose/throat surgery	2	13,690	1,319.3	3.4
7.	Abdominal surgery	3	7,951	766.2	8.3
13.	Orthopedic surgery	4	6,579	634.0	10.0
11.	Gynecological surgery	5	5,929	571.4	5.3
1975:					
12.	Obstetric operations	1	39,437	3,507.1	5.0
3.	Ear/nose/throat surgery	2	11,685	1,039.1	3.0
13.	Orthopedic surgery	3	8,078	718.4	8.0
11.	Gynecological surgery	4	7,808	694.4	4.0
7.	Abdominal surgery	5	7,506	667.5	7.2
1978:					
12.	Obstetric operations	1	37,395	3,225.9	5.0
3.	Ear/nose/throat surgery	2	10,502	906.0	2.8
13.	Orthopedic surgery	3	8,105	699.2	7.3
11.	Gynecological surgery	4	7,053	608.4	3.7
7.	Abdominal surgery	5	6,656	574.2	6.7

Source: Statistics Canada, Health Division, Institutional Care Section, unpublished data.

**TABLE 44. The Five Leading Types of Surgical Procedures Performed in Hospitals on Women Between the Ages of 20 and 24, Canada, 1971, 1975 and 1978**

ICDA-8 Chapters		Rank	Number of cases	Rate per 100,000 population	Average stay
1971:					
12.	Obstetric operations	1	95,249	10,079.3	6.0
11.	Gynecological surgery	2	20,712	2,191.7	5.4
7.	Abdominal surgery	3	10,877	1,151.0	9.6
3.	Ear/nose/throat surgery	4	8,619	912.1	3.7
13.	Orthopedic surgery	5	4,517	478.0	9.9
1975:					
12.	Obstetric operations	1	98,241	9,483.6	5.4
11.	Gynecological surgery	2	24,759	2,390.1	4.3
7.	Abdominal surgery	3	9,976	963.0	8.4
3.	Ear/nose/throat surgery	4	7,766	749.7	3.4
13.	Orthopedic surgery	5	5,778	557.8	8.3
1978:					
12.	Obstetric operations	1	108,028	9,686.0	5.3
11.	Gynecological surgery	2	22,047	1,976.8	4.0
7.	Abdominal surgery	3	8,174	733.0	7.8
3.	Ear/nose/throat surgery	4	6,912	619.7	3.1
13.	Orthopedic surgery	5	6,613	539.1	6.9

Source: Statistics Canada, Health Division, Institutional Care Section, unpublished data.

**TABLE 45. Major Types of Surgical Procedures Performed in Hospitals on Men Between the Ages of 15 and 19, for the 10 Canadian Provinces, 1978**

Province	Major chapters						
	3. Ear/nose/ throat surgery	7. Abdominal surgery	9. Urological surgery	13. Orthopedic surgery	14. Plastic surgery	16. Dental surgery	19. Diagnostic radiology
Newfoundland:							
Rank	3	2	5	1	4	8	7
Number	163	177	63	228	107	24	35
Rate per 100,000 population	524.1	569.1	202.6	733.1	344.0	77.2	112.5
Average stay	4.6	6.9	11.4	11.9	8.1	4.6	10.8
Prince Edward Island:							
Rank	2	3	6	1	4	5	12
Number	44	43	12	68	22	17	1
Rate per 100,000 population	666.7	651.5	181.8	1,030.3	333.3	257.6	15.2
Average stay	2.9	7.2	2.7	6.5	8.5	1.5	37.0
Nova Scotia:							
Rank	2	3	5	1	4	16	6
Number	325	238	83	527	135	13	81
Rate per 100,000 population	733.6	537.3	187.4	1,189.6	304.7	29.4	182.8
Average stay	4.3	7.9	6.7	11.3	8.0	4.9	9.2
New Brunswick:							
Rank	2	3	5	1	4	8	11
Number	249	217	75	474	115	34	19
Rate per 100,000 population	669.4	583.3	201.6	1,274.2	309.1	91.4	51.1
Average stay	3.9	7.1	6.6	9.9	8.3	3.0	7.6
Quebec:							
Rank	2	3	6	1	4	5	14
Number	2,118	1,596	709	3,180	834	799	116
Rate per 100,000 population	636.8	479.9	213.2	956.1	250.8	240.2	34.9
Average stay	3.1	6.1	4.8	8.4	6.2	1.2	14.2



**TABLE 45. Major Types of Surgical Procedures Performed in Hospitals on Men Between the Ages of 15 and 19, for the 10 Canadian Provinces, 1978 – Concluded**

Province	Major chapters						
	3. Ear/nose/ throat surgery	7. Abdominal surgery	9. Urological surgery	13. Orthopedic surgery	14. Plastic surgery	16. Dental surgery	19. Diagnostic radiology
Ontario:							
Rank	2	3	5	1	4	6	7
Number	2,616	2,458	771	5,317	1,327	673	578
Rate per 100,000 population	624.8	587.1	184.1	1,269.9	316.9	160.7	138.1
Average stay	3.3	6.3	6.8	7.0	5.8	2.3	8.6
Manitoba:							
Rank	2	3	5	1	4	6	8
Number	371	331	66	593	179	57	41
Rate per 100,000 population	728.9	650.3	129.7	1,165.0	351.7	112.0	80.6
Average stay	5.0	6.6	6.0	10.0	9.4	1.8	11.0
Saskatchewan:							
Rank	3	2	5	1	4	8	9
Number	287	291	74	679	234	40	36
Rate per 100,000 population	582.1	590.3	150.1	1,377.3	474.7	81.1	73.0
Average stay	3.3	7.5	10.4	5.7	5.9	2.1	8.1
Alberta:							
Rank	3	2	7	1	4	10	5
Number	719	723	210	2,030	587	143	332
Rate per 100,000 population	670.1	673.8	195.7	1,891.9	547.1	133.3	309.4
Average stay	3.7	6.7	6.7	6.4	7.3	9.9	13.5
British Columbia:							
Rank	2	3	5	1	4	9	7
Number	706	685	221	2,078	535	113	143
Rate per 100,000 population	574.5	557.4	179.8	1,690.8	435.3	91.9	116.4
Average stay	3.6	6.3	6.7	6.9	5.2	1.6	9.0

Source: Health Division, Institutional Care Section, unpublished data.

**TABLE 46. Major Types of Surgical Procedures Performed in Hospitals on Men Between the Ages of 20 and 24, for the 10 Canadian Provinces, 1978**

Province	Major chapters							
	3. Ear/nose/ throat surgery	7. Abdominal surgery	8. Proctological surgery	9. Urological surgery	13. Orthopedic surgery	14. Plastic surgery	16. Dental surgery	19. Diagnostic radiology
Newfoundland:								
Rank	3	2	6	4	1	5	9	7
Number	118	152	67	78	220	69	28	44
Rate per 100,000 population	448.7	577.9	254.8	296.6	836.5	262.4	106.5	167.3
Average stay	4.8	8.0	7.0	5.7	10.4	10.1	2.9	6.1
Prince Edward Island:								
Rank	3	2	12	7	1	4	5	8
Number	25	40	3	8	60	20	17	4
Rate per 100,000 population	471.7	754.8	56.6	150.9	1,132.1	377.4	320.8	75.5
Average stay	3.9	6.7	9.0	3.3	6.2	5.5	1.4	2.0
Nova Scotia:								
Rank	2	3	5	6	1	4	17	8
Number	311	247	103	88	458	122	11	68
Rate per 100,000 population	783.4	622.2	259.5	221.7	1,153.7	307.3	27.7	171.3
Average stay	4.2	8.4	6.6	6.3	8.8	6.9	4.4	11.7
New Brunswick:								
Rank	2	3	6	5	1	4	10	12
Number	228	197	84	101	474	115	27	18
Rate per 100,000 population	678.6	586.3	250.0	300.6	1,410.7	342.3	80.4	53.6
Average stay	3.9	7.1	6.6	6.1	10.1	7.4	2.1	7.0
Quebec:								
Rank	2	3	5	4	1	6	7	14
Number	2,281	1,583	829	917	3,276	739	679	162
Rate per 100,000 population	728.8	505.8	264.9	293.0	1,046.7	236.1	216.9	51.8
Average stay	3.1	6.8	4.5	5.0	7.7	7.4	1.7	13.1

**TABLE 46. Major Types of Surgical Procedures Performed in Hospitals on Men Between the Ages of 20 and 24, for the 10 Canadian Provinces, 1978 – Concluded**

Province	Major chapters							
	3. Ear/nose/ throat surgery	7. Abdominal surgery	8. Proctological surgery	9. Urological surgery	13. Orthopedic surgery	14. Plastic surgery	16. Dental surgery	19. Diagnostic radiology
Ontario:								
Rank	2	3	5	6	1	4	7	8
Number	2,451	2,349	1,043	912	4,882	1,220	875	727
Rate per 100,000 population	641.3	614.6	272.9	238.6	1,277.3	319.2	228.9	190.2
Average stay	3.3	6.5	4.8	6.8	7.2	7.2	1.9	8.4
Manitoba:								
Rank	2	3	7	5	1	4	6	10
Number	350	285	80	91	563	147	89	45
Rate per 100,000 population	729.2	593.8	166.7	189.6	1,172.9	306.3	185.4	93.8
Average stay	4.5	6.3	7.7	6.6	8.3	8.2	1.9	10.0
Saskatchewan:								
Rank	2	3	7	5	1	4	6	10
Number	275	271	61	89	688	174	70	51
Rate per 100,000 population	613.8	604.9	136.2	198.7	1,535.7	388.4	156.3	113.8
Average stay	2.9	7.9	5.7	7.8	7.3	9.2	1.5	9.7
Alberta:								
Rank	2	3	8	7	1	4	9	5
Number	787	709	243	275	2,162	557	216	402
Rate per 100,000 population	707.7	637.6	218.5	247.3	1,944.2	500.9	194.2	361.5
Average stay	3.6	7.5	6.4	6.5	6.9	7.6	2.3	10.6
British Columbia:								
Rank	2	3	6	5	1	4	10	8
Number	688	633	237	242	2,053	518	132	194
Rate per 100,000 population	599.3	551.4	206.5	210.8	1,788.3	451.2	115.0	169.0
Average stay	3.3	6.3	5.1	8.4	7.4	6.6	6.9	7.1

Source: Health Division, Institutional Care Section, unpublished data.

**TABLE 47. Major Types of Surgical Procedures Performed in Hospitals on Women Between the Ages of 15 and 19, for the 10 Canadian Provinces, 1978**

Province	Major chapters						
	3. Ear/nose/ throat surgery	7. Abdominal surgery	11. Gyneco- logical surgery	12. Obstetric operations surgery	13. Ortho- pedic surgery	14. Plastic surgery	16. Dental surgery
Newfoundland:							
Rank	2	4	3	1	5	9	7
Number	289	170	190	1,637	124	51	62
Rate per 100,000 population	960.1	564.8	631.2	5,438.5	412.0	169.4	206.0
Average stay	4.2	7.5	5.4	7.2	13.4	13.4	2.6
Prince Edward Island:							
Rank	1	2	8	3	4	5	6
Number	65	55	18	41	33	31	30
Rate per 100,000 population	1,015.6	859.4	281.3	640.6	515.6	484.4	468.8
Average stay	3.3	5.7	3.8	6.6	5.5	3.3	1.0
Nova Scotia:							
Rank	2	3	5	1	4	8	21
Number	485	313	207	1,633	247	90	11
Rate per 100,000 population	1,143.9	738.2	488.2	3,851.4	582.6	212.3	25.9
Average stay	3.2	6.7	5.2	5.7	7.8	6.1	5.2
New Brunswick:							
Rank	2	3	4	1	5	6	8
Number	357	242	189	419	172	62	45
Rate per 100,000 population	1,002.8	679.8	530.9	1,177.0	483.2	174.2	126.4
Average stay	4.2	7.4	4.4	6.1	8.0	6.7	1.8
Quebec:							
Rank	2	4	6	1	3	7	5
Number	2,760	1,404	997	6,306	1,823	771	1,014
Rate per 100,000 population	856.6	435.8	309.4	1,957.2	565.8	239.3	314.7
Average stay	2.6	6.6	4.7	4.5	6.8	4.5	1.3



**TABLE 47. Major Types of Surgical Procedures Performed in Hospitals on Women  
Between the Ages of 15 and 19, for the 10 Canadian Provinces, 1978 – Concluded**

Province	Major chapters						
	3. Ear/nose/ throat surgery	7. Abdominal surgery	11. Gyneco- logical surgery	12. Obstetric operations surgery	13. Ortho- pedic surgery	14. Plastic surgery	16. Dental surgery
Ontario:							
Rank	2	2	5	1	3	7	6
Number	3,553	2,398	1,920	15,793	2,954	983	1,353
Rate per 100,000 population	881.6	595.0	476.4	3,918.9	733.0	243.9	335.7
Average stay	2.8	6.6	4.4	4.9	7.3	4.8	2.0
Manitoba:							
Rank	2	3	5	1	4	7	6
Number	507	318	173	2,118	298	129	147
Rate per 100,000 population	1,024.2	642.4	349.5	4,278.8	602.0	260.6	297.0
Average stay	2.6	7.0	4.4	5.0	8.4	5.0	2.2
Saskatchewan:							
Rank	2	5	4	1	3	6	9
Number	393	290	291	1,933	299	130	50
Rate per 100,000 population	818.8	604.2	606.3	4,027.1	622.9	270.8	104.2
Average stay	2.5	7.3	4.1	5.3	6.8	4.1	1.5
Alberta:							
Rank	4	5	2	1	3	7	11
Number	1,051	787	2,488	4,095	1,119	403	234
Rate per 100,000 population	1,015.5	760.4	2,403.9	3,956.5	1,081.2	389.4	226.1
Average stay	2.8	6.8	2.3	5.5	6.5	4.8	6.8
British Columbia:							
Rank	2	4	5	1	3	6	8
Number	1,042	679	580	3,420	1,036	419	250
Rate per 100,000 population	879.3	573.0	489.5	2,886.1	874.3	353.6	211.0
Average stay	2.8	6.7	4.3	4.4	7.5	4.5	2.8

Source: Health Division, Institutional Care Section, unpublished data.

**TABLE 48. Major Types of Surgical Procedures Performed in Hospitals on Women Between the Ages of 20 and 24, for the 10 Canadian Provinces, 1978**

Province	Major chapters						
	3. Ear/nose/ throat surgery	7. Abdominal surgery	11. Gyneco- logical surgery	12. Obstetric operations	13. Ortho- pedic surgery	18. Diag- nostic endoscopy	19. Diag- nostic radio- logy
Newfoundland:							
Rank	4	3	2	1	6	5	8
Number	172	234	765	3,231	84	152	49
Rate per 100,000 population	649.1	883.0	2,886.8	12,192.5	317.0	573.6	184.9
Average stay	4.3	7.8	4.1	6.2	8.9	4.8	7.1
Prince Edward Island:							
Rank	4	3	2	1	5	7	16
Number	42	75	90	118	35	16	1
Rate per 100,000 population	792.5	1,415.1	1,698.1	2,226.4	660.4	301.9	18.9
Average stay	4.0	7.2	3.7	6.9	4.5	4.9	4.0
Nova Scotia:							
Rank	4	3	2	1	5	6	7
Number	314	335	806	3,149	173	159	108
Rate per 100,000 population	811.4	865.6	2,082.7	8,137.0	447.0	410.9	279.1
Average stay	3.5	8.4	5.3	5.7	9.8	7.9	8.1
New Brunswick:							
Rank	4	3	2	1	5	10	16
Number	198	342	835	1,001	154	37	8
Rate per 100,000 population	600.0	1,036.4	2,530.3	3,033.3	466.7	112.1	24.2
Average stay	3.4	7.7	4.9	6.4	8.5	11.8	11.9
Quebec:							
Rank	3	4	2	1	5	7	11
Number	2,149	2,010	3,338	28,841	1,486	884	221
Rate per 100,000 population	690.1	645.5	1,071.9	9,261.7	477.2	283.9	71.0
Average stay	2.8	7.6	4.4	4.8	6.3	5.4	10.8

**TABLE 48. Major Types of Surgical Procedures Performed in Hospitals on Women  
Between the Ages of 20 and 24, for the 10 Canadian Provinces, 1978 – Concluded**

Province	Major chapters						
	3. Ear/nose/ throat surgery	7. Abdominal surgery	11. Gyneco- logical surgery	12. Obstetric operations	13. Ortho- pedic surgery	18. Diag- nostic endoscopy	19. Diag- nostic radio- logy
Ontario:							
Rank	4	3	2	1	5	7	9
Number	2,151	2,745	6,811	42,734	2,081	1,440	993
Rate per 100,000 population	553.5	706.4	1,752.7	10,996.9	535.5	370.6	255.5
Average stay	3.2	7.7	4.2	5.4	7.1	5.5	7.8
Manitoba:							
Rank	4	3	2	1	5	10	8
Number	366	369	735	4,598	202	63	91
Rate per 100,000 population	767.3	773.6	1,540.9	9,639.4	423.5	132.1	190.8
Average stay	2.5	7.7	4.5	5.2	7.5	6.4	10.5
Saskatchewan:							
Rank	5	3	2	1	4	7	11
Number	227	338	1,057	4,272	253	107	49
Rate per 100,000 population	525.5	782.4	2,446.8	9,888.9	585.7	247.7	113.4
Average stay	2.7	7.8	4.3	5.6	5.6	5.4	8.3
Alberta:							
Rank	6	3	2	1	5	8	4
Number	719	943	5,178	11,017	804	523	911
Rate per 100,000 population	686.7	900.7	4,945.6	10,522.4	767.9	499.5	870.1
Average stay	2.9	8.3	2.8	5.7	6.1	4.4	7.3
British Columbia:							
Rank	5	3	2	1	4	6	8
Number	574	783	2,432	9,067	741	404	308
Rate per 100,000 population	494.0	673.8	2,092.9	7,802.9	637.7	347.7	265.1
Average stay	3.4	7.6	4.4	5.1	7.1	4.8	5.9

Source: Health Division, Institutional Care Section, unpublished data.

**TABLE 49. Distribution of Operating Costs<sup>1</sup> of Public Hospitals by Sex, Showing Five ICD-9 Chapters, for the Population Aged 15 to 24, Canada, 1976 and 1980-1981<sup>2</sup>**

	1976 operating costs			
	Current dollars	Constant dollars		
	\$'000	\$'000		
Male:				
Accidents, poisonings and violence	58,445	36,437		
Mental disorders	23,783	14,827		
Digestive system	16,321	10,175		
Nervous system and sense organs	12,372	7,713		
Musculoskeletal system and connective tissue	10,509	6,552		
Female:				
Pregnancy, childbirth and puerperium	159,612	99,509		
Mental disorders	27,623	17,221		
Digestive system	23,244	14,491		
Accidents, poisonings and violence	21,882	13,642		
Genitourinary system	20,046	12,497		
	1980-81 operating costs			
	Current dollars	Per cent change from 1976 to 1980-81	Constant dollars	Per cent change from 1976 to 1980-81
	\$'000	%	\$'000	%
Male:				
Accidents, poisonings and violence	81,354	39.2	33,827	-7.2
Mental disorders	45,548	91.5	18,939	27.7
Digestive system	23,132	41.7	9,618	-5.5
Nervous system and sense organs	18,284	47.8	7,603	-1.4
Musculoskeletal system and connective tissue	16,685	58.8	6,938	5.9
Female:				
Pregnancy, childbirth and puerperium	211,691	32.6	88,021	-11.5
Mental disorders	46,570	68.6	19,364	12.4
Digestive system	29,978	29.0	12,465	-14.0
Genitourinary system	29,604	47.7	12,309	-1.5
Accidents, poisonings and violence	30,421	39.0	12,649	-7.3

<sup>1</sup> In constant dollars deflated by the gross national expenditure implicit price index, 1971 = 100.

<sup>2</sup> Sources: For a discussion of the methodology used to construct this table, see D.E. Angus, Louis A. Lefebvre and Claude Strohmenger, *An Analysis of Hospital Expenditures in Canada*, Statistics Canada, Catalogue 83-522E. Statistics Canada, *Hospital Annual Statistics 1976*, Catalogue 82-232, Annual, Ottawa, 1981. Statistics Canada, *Hospital Annual Statistics 1980-81*, Catalogue 82-232, Annual, Ottawa, 1983.



**TABLE 50. The Five Leading Causes of Death in Men Aged 15 to 19 and 20 to 24, Canada, 1961**

List A		Number of deaths	Rate per 100,000 population
15-19 years:			
AE138	Motor vehicle traffic accidents	276	38
A44-A60	Cancer	78	11
A79-A86	Diseases of the circulatory system	27	4
AE-148	Suicide	27	4
A127-A129	Congenital anomalies	19	3
<b>Total for five leading causes</b>		<b>427</b>	<b>59</b>
20-24 years:			
AE138	Motor vehicle traffic accidents	403	69
A44-A60	Cancer	65	11
AE-148	Suicide	53	9
A79-A86	Diseases of the circulatory system	29	5
A88-A93	Influenza, bronchitis, pneumonia	18	3
<b>Total for five leading causes</b>		<b>575</b>	<b>98</b>

Source: Statistics Canada, Vital Statistics, Vol. III, Mortality, Catalogue 84-206, Annual, Ottawa, 1961.

**TABLE 51. The Five Leading Causes of Death in Men Aged 15 to 19 and 20 to 24, Canada, 1981**

ICD-9 Codes		Number of deaths	Rate per 100,000 population
15-19 years:			
E810-E819	Motor vehicle traffic accidents	758	64
E950-E959	Suicide	250	21
140-239	Cancer	76	6
E960-E969	Homicide	28	2
390-459	Diseases of the circulatory system	26	2
<b>Total for five leading causes</b>		<b>1,138</b>	<b>96</b>
20-24 years:			
E810-E819	Motor vehicle traffic accidents	803	68
E950-E959	Suicide	390	33
140-239	Cancer	81	7
E960-E969	Homicide	48	4
390-459	Diseases of the circulatory system	46	4
<b>Total for five leading causes</b>		<b>1,368</b>	<b>116</b>

Source: Statistics Canada, Vital Statistics, Vol. III, Mortality, Catalogue 84-206, Annual, Ottawa, 1981.

**TABLE 52. The Five Leading Causes of Death in Women Aged 15 to 19 and 20 to 24, Canada, 1961**

List A		Number of deaths	Rate per 100,000 population
15-19 years:			
AE138	Motor vehicle traffic accidents	97	14
A44-A60	Cancer	54	8
A79-A86	Diseases of the circulatory system	16	2
A127-A129	Congenital anomalies	14	2
A88-A93	Influenza, bronchitis, pneumonia	14	2
<b>Total for five leading causes</b>		<b>195</b>	<b>28</b>
20-24 years:			
AE138	Motor vehicle traffic accidents	70	12
A44-A60	Cancer	41	7
A79-A86	Diseases of the circulatory system	37	6
A115-A120	Maternal mortality	27	5
A127-A129	Congenital anomalies	19	3
<b>Total for five leading causes</b>		<b>195</b>	<b>33</b>

Source: Statistics Canada, Vital Statistics, vol. III, Mortality, Catalogue 84-206, Annual, Ottawa, 1961.

**TABLE 53. The Five Leading Causes of Death in Women Aged 15 to 19 and 20 to 24, Canada, 1981**

ICD-9 Codes		Number of deaths	Rate per 100,000 population
15-19 years:			
AE235-AE240	Motor vehicle traffic accidents	220	19
A37-A93	Cancer	51	5
AE264-AE270	Suicide	43	4
A224-A228	Congenital anomalies	25	2
AE271-AE274	Homicide	19	2
<b>Total for five leading causes</b>		<b>358</b>	<b>32</b>
20-24 years:			
AE235-AE240	Motor vehicle traffic accidents	194	17
AE264-AE270	Suicide	69	6
A37-A93	Cancer	54	5
AE271-AE274	Homicide	35	3
A127-A160	Diseases of the circulatory system	27	2
<b>Total for five leading causes</b>		<b>379</b>	<b>33</b>

Source: Statistics Canada, Vital Statistics, Vol. III, Mortality, Catalogue 84-206, Annual, Ottawa, 1981.

**TABLE 54. Distribution of Deaths Resulting from Motor Vehicle Traffic Accidents, by Sex and Age, Canada, 1961, 1971 and 1981<sup>1</sup> (Rate per 100,000 Population)**

	Male		Female		Total	
	Number	Rate	Number	Rate	Number	Rate
15-19 years:						
1961	276	37.9	97	13.8	373	26.0
1971	668	62.2	252	24.2	920	43.5
1981	758	64.1	220	19.4	978	42.2
20-24 years:						
1961	403	68.6	70	11.7	473	40.0
1971	797	84.6	198	20.9	995	52.7
1981	803	68.4	194	16.6	997	42.5

<sup>1</sup> 1961, 1971: List A, AE138.

1981: List A, AE235-AE240.

Source: Statistics Canada, Health Division, Vital Statistics and Disease Registries Section.

**TABLE 55. Distribution of Deaths Resulting from Motor Vehicle Traffic Accidents, by Age and Sex, Canada and the Provinces, 1981 (Rate per 100,000 Population)**

	15-19 years						20-24 years					
	Male		Female		Total		Male		Female		Total	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Canada	758	64.1	220	19.4	978	42.2	803	68.4	194	16.6	997	42.5
Newfoundland	10	31.2	4	12.9	14	22.2	15	59.9	5	19.2	20	39.2
Prince Edward Island	1	--	--	--	1	--	3	--	1	--	4	--
Nova Scotia	43	97.8	5	11.9	48	56.0	19	48.4	3	--	22	56.2
New Brunswick	28	75.8	9	25.6	37	51.3	38	117.5	7	21.7	45	69.7
Quebec	207	65.4	48	15.8	255	41.1	203	63.0	40	12.4	243	37.8
Ontario	184	44.5	46	11.6	230	28.4	231	58.8	56	14.1	287	36.3
Manitoba	23	47.2	14	29.5	37	38.5	24	50.9	7	14.9	31	33.0
Saskatchewan	38	78.7	10	21.4	48	50.6	39	86.8	6	13.6	45	50.5
Alberta	93	84.8	39	37.2	132	61.6	102	74.4	33	25.9	135	51.1
British Columbia	126	103.1	43	36.7	169	70.6	128	102.5	36	28.5	164	65.3
Yukon	4	--	2	--	6	--	--	--	--	--	--	--
Northwest Territories	1	--	--	--	1	--	1	--	--	--	1	--

Source: Statistics Canada, Health Division, Vital Statistics and Disease Registries Section.

**TABLE 56. Distribution of the Population Aged 15 to 24, by Affect Balance Scale Scores and Sex, Canada, 1978-1979**

		Positive	Mixed	Negative	Unknown	Total
in thousands						
Male	No. %	1,014 44.2	1,088 47.4	84 3.7	108 4.7	2,294 100.0
Female	No. %	965 42.8	1,073 47.6	131 5.8	85 3.8	2,254 100.0
Total	No. %	1,979 43.5	2,161 47.5	214 4.7	193 4.2	4,548 100.0

Source: Canada Health Survey, unpublished data.

**TABLE 57. The Five Leading Causes of Admission to Mental Institutions, First Admissions for Men Aged 15 to 19 and 20 to 24, Canada, 1978**

ICDA-8 Codes		Number of admissions	Rate per 100,000 population
15-19 years:			
300	Neurosis	592	49
295	Schizophrenia	468	38
301	Personality disorders	411	34
307	Transient situational disorders	326	27
308	Behavioural disorders in children	260	21
Total for five leading causes		2,057	169
20-24 years:			
295	Schizophrenia	984	87
300	Neurosis	929	82
303	Alcoholism	553	49
301	Personality disorders	447	40
296	Affective psychoses	290	25
Total for five leading causes		3,203	284

Source: Statistics Canada, **Mental Health Statistics 1978**, Vol. I, Institutional Admissions and Separations, Catalogue 83-204, Annual, Ottawa, 1981.  
Statistics Canada, Health Division, Institutional Care Section, unpublished data.



**TABLE 58. The Five Leading Causes of Admission to Mental Institutions, First Admissions for Women Aged 15 to 19 and 20 to 24, Canada, 1978**

ICDA-8 Codes		Number of admissions	Rate per 100,000 population
15-19 years:			
300	Neurosis	898	77
307	Transient situational disorders	395	34
308	Behavioural disorders in children	294	25
301	Personality disorders	251	22
295	Schizophrenia	246	21
<b>Total for five leading causes</b>		<b>2,084</b>	<b>179</b>
20-24 years:			
300	Neurosis	1,452	130
295	Schizophrenia	395	35
296	Affective psychoses	358	32
301	Personality disorders	266	24
307	Transient situational disorders	193	17
<b>Total for five leading causes</b>		<b>2,664</b>	<b>238</b>

Source: Statistics Canada, **Mental Health Statistics 1978**, Vol. I, Institutional Admissions and Separations, Catalogue 83-204, Annual, Ottawa, 1981.  
 Statistics Canada, Health Division, Institutional Care Section, unpublished data.

**TABLE 59. The Five Leading Causes of Admission to Mental Institutions, First Admissions for Men and Women Aged 25 to 64, Canada, 1978**

ICDA-8 Codes		Number of admissions	Rate per 100,000 population
25-64 years:			
Male:			
295	Schizophrenia	6,500	119
303	Alcoholism	5,782	105
300	Neurosis	3,589	65
296	Affective psychoses	2,499	46
301	Personality disorders	1,161	21
<b>Total for five leading causes</b>		<b>19,531</b>	<b>356</b>
Female:			
300	Neurosis	7,297	132
295	Schizophrenia	5,324	96
296	Affective psychoses	4,386	79
303	Alcoholism	1,326	24
298	Other psychoses	617	11
<b>Total for five leading causes</b>		<b>18,950</b>	<b>342</b>

Source: Statistics Canada, Health Division, Institutional Care Section, unpublished data.

**TABLE 60. Distribution of First Admissions to Mental Institutions, by Age and Sex, Canada, 1978**

	15-19 years		20-24 years		25-64 years	
	Number of admissions	Rate per 100,000 population	Number of admissions	Rate per 100,000 population	Number of admissions	Rate per 100,000 population
Male	3,466	284.5	4,387	388.7	23,367	425.8
Female	3,045	261.1	3,557	317.7	23,622	426.4
<b>Total</b>	<b>6,511</b>	<b>273.1</b>	<b>7,944</b>	<b>333.2</b>	<b>46,989</b>	<b>426.1</b>

Source: Statistics Canada, Health Division, Institutional Care Section.

**TABLE 61. The Five Leading Causes of Hospitalization for Mental Illness in General Hospitals, in Men Aged 15 to 19 and 20 to 24, Canada, 1978**

ICDA-8 Codes		Number of cases	Rate per 100,000 population
15-19 years:			
300	Neurosis	860	71
295	Schizophrenia	719	59
303	Alcoholism	508	42
301	Personality disorders	434	36
307	Transient situational disorders	422	35
<b>Total for five leading causes</b>		<b>2,943</b>	<b>243</b>
20-24 years:			
295	Schizophrenia	1,970	175
300	Neurosis	1,445	128
303	Alcoholism	973	86
301	Personality disorders	625	55
296	Affective psychoses	398	35
<b>Total for five leading causes</b>		<b>5,411</b>	<b>479</b>

Source: Statistics Canada, Hospital Morbidity 1978, Catalogue 82-206, Annual, Ottawa, 1982.

**TABLE 62. The Five Leading Causes of Hospitalization for Mental Illness in General Hospitals, in Women Aged 15 to 19 and 20 to 24, Canada, 1978**

ICDA-8 Codes		Number of cases	Rate per 100,000 population
15-19 years:			
300	Neurosis	2,081	178
307	Transient situational disorders	718	62
301	Personality disorders	578	50
295	Schizophrenia	448	38
306	Special symptoms not elsewhere classified	399	34
<b>Total for five leading causes</b>		<b>4,224</b>	<b>362</b>
20-24 years:			
300	Neurosis	3,247	290
295	Schizophrenia	1,079	96
301	Personality disorders	757	68
296	Affective psychoses	599	54
307	Transient situational disorders	403	36
<b>Total for five leading causes</b>		<b>6,085</b>	<b>544</b>

Source: Statistics Canada, **Hospital Morbidity 1978**, Catalogue 82-206, Annual, Ottawa, 1982.

**TABLE 63. Suicide Rate for the Population Aged 15 to 24, by Sex, Canada and the Provinces, 1961, 1971 and 1981<sup>1</sup>**

	Canada	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.
Rate per 100,000 population													
<b>1961</b>													
15-19 years:													
Male	3.7	9.1	-	3.0	7.3	1.7	4.0	-	8.0	6.0	5.2	--	--
Female	0.8	-	-	-	-	0.9	0.9	-	2.8	2.0	-	--	--
Total	2.3	4.6	-	1.6	3.7	1.3	2.5	-	5.5	4.0	2.7	--	--
20-24 years:													
Male	9.0	6.5	-	-	10.6	3.3	11.6	6.7	13.8	15.8	14.7	--	--
Female	2.5	-	-	-	-	2.1	4.1	-	-	2.2	4.2	--	--
Total	5.7	3.3	-	-	5.3	2.7	7.7	3.4	7.0	9.0	9.4	--	--
<b>1971</b>													
15-19 years:													
Male	12.7	3.3	17.1	4.9	-	12.4	14.6	14.3	16.4	24.4	4.9	--	--
Female	3.1	-	-	-	-	2.3	2.8	4.2	2.1	3.8	9.2	--	--
Total	7.9	1.7	8.7	2.5	-	7.4	8.8	9.3	9.4	14.3	7.0	--	--

**TABLE 63. Suicide Rate for the Population Aged 15 to 24, by Sex, Canada and the Provinces, 1961, 1971 and 1981<sup>1</sup> – Concluded**

	Canada	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.
Rate per 100,000 population													
<b>1971 – Concluded</b>													
20-24 years:													
Male	23.1	4.5	–	26.0	6.9	19.1	24.2	34.9	11.4	28.3	39.4	--	--
Female	5.7	–	–	3.0	3.6	3.6	6.8	14.1	–	4.2	9.8	--	--
Total	14.4	2.2	–	14.6	5.3	11.3	15.4	24.6	5.8	16.2	22.7	--	--
<b>1981</b>													
15-19 years:													
Male	21.2	9.4	15.1	11.4	5.4	19.9	16.4	39.0	41.4	32.8	22.9	--	--
Female	3.8	–	–	9.6	5.7	2.6	2.5	2.1	17.1	3.8	4.3	--	--
Total	12.7	4.8	7.7	10.5	5.5	11.5	9.6	20.8	29.5	18.7	13.8	--	--
20-24 years:													
Male	33.2	24.0	38.7	33.1	40.2	38.8	25.2	44.5	42.3	34.3	33.6	--	--
Female	5.9	–	–	–	–	7.2	4.5	10.7	15.9	3.1	7.9	--	--
Total	19.6	11.7	19.0	16.6	20.1	23.0	14.8	27.7	29.2	19.3	20.7	--	--

<sup>1</sup> 1961: List A, AE148.

1971: List A, AE147.

1981: List A, AE264-AE270.

**Source:** Statistics Canada, Health Division, Vital Statistics and Disease Registries Section.**TABLE 64. Hospital Separations Related to Attempted Suicide or "Self-inflicted Injuries" (ICD-9, E950-E959), by Age and Sex, Five Provinces, 1980-1981<sup>1</sup>**

	15-19 years			20-24 years		
	Male	Female	Total	Male	Female	Total
Nova Scotia: <sup>2</sup>						
Number	10	15	25	11	15	26
Rate per 100,000 population	22.4	35.2	28.6	27.8	38.7	33.1
Manitoba:						
Number	74	118	192	73	78	151
Rate per 100,000 population	148.9	243.3	195.5	154.7	167.4	161.0
Saskatchewan:						
Number	26	43	69	36	38	74
Rate per 100,000 population	53.1	90.5	71.5	80.2	86.4	83.2
Alberta:						
Number	108	224	332	160	228	388
Rate per 100,000 population	98.5	211.7	154.1	125.0	191.8	157.1
British Columbia:						
Number	199	359	558	258	307	565
Rate per 100,000 population	161.5	303.7	231.2	212.7	272.2	231.5

<sup>1</sup> Statistics Canada has data for only five provinces.<sup>2</sup> The rates are based on intercensal estimates as of June 1, 1980.**Source:** Statistics Canada, Health Division, Institutional Care Section, unpublished data.



**TABLE 65. Distribution of Suicides by Means Used, by Age and Sex, Canada, 1981 (List A)**

List A	Diagnosis		15-19 years		20-24 years		25-64 years	
			Male	Female	Male	Female	Male	Female
AE264	Drugs, medicaments and biological substances	No.	10	13	25	18	178	237
		%	4.0	30.2	6.4	26.1	11.1	40.3
AE265	Other solid or liquid substances	No.	-	-	3	3	27	10
		%	-	-	0.8	4.3	1.7	1.7
AE266	Gases or vapours	No.	8	1	45	5	191	60
		%	3.2	2.3	11.5	7.2	12.0	10.2
AE267	Hanging, strangulation and suffocation	No.	69	9	80	14	387	105
		%	27.6	20.9	20.5	20.3	24.2	17.8
AE268	Hand gun	No.	2	-	-	1	26	1
		%	0.8	-	-	1.4	1.6	0.2
AE269	Firearms, all other types and unspecified	No.	143	17	193	15	574	54
		%	57.2	39.5	49.5	21.7	35.9	9.2
AE270	All other means and late effects of attempted suicide	No.	18	3	44	13	214	121
		%	7.2	7.0	11.3	18.8	13.4	20.6
AE264- AE270	<b>Total</b>	No.	<b>250</b>	<b>43</b>	<b>390</b>	<b>69</b>	<b>1,597</b>	<b>588</b>
		%	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Source:** Statistics Canada, Health Division, Vital Statistics and Disease Registries Section, unpublished data.

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